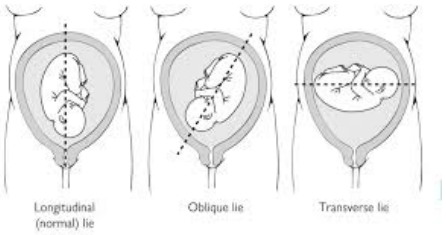

Longitudinal (normal) lie
Oblique lie
Transverse lie

Sarcoidosis is:
a granulomatous inflammatory disease
Most commonly affecting:

lungs
hilar lymph nodes
skin
eyes

b. sarcoidosis often has surprisingly normal lung exam, no crackles

"Which markers specifically indicate ACUTE hepatitis B infection?"
The key word is:
ACUTE

That means you must identify:
current infection
PLUS
recent/new infection

IgM =
"I'm new"
So:
anti-HBc IgM

HBsAg
(Hepatitis B surface antigen)
Means:
current hepatitis B infection is present

Could be:
acute
OR
chronic

So HBsAg alone is NOT enough.

Iron deficiency → decreased hemoglobin synthesis → RBCs become:

microcytic (low MCV)
hypochromic (low MCH)

Because the marrow produces RBCs of varying sizes early on:

RDW (Red Cell Distribution Width) increases.

The body also tries to capture more iron:

transferrin increases
TIBC increases
ferritin decreases.

Herpes Simplex Keratitis damages: corneal nerves leading to:
decreased corneal sensation.

Spontaneous Pneumothorax occurs when:
air enters the pleural space spontaneously
→ lung partially or completely collapses.

In Bullous Emphysema: alveolar walls are destroyed
large bullae form near pleura bullae can rupture
When they rupture:
air leaks into pleural space

What does plaque psoriasis look like?

Psoriasis is:
chronic inflammatory skin disease
driven by immune dysregulation
causes rapid keratinocyte turnover

Classic findings:
well-demarcated plaques
erythematous base
silvery scale

failing kidneys disrupt:
erythropoietin production
vitamin D metabolism
calcium/phosphate balance

d. secondary para bc the kidneys are the primary problem, NOT the parathyroid glands.

This leads to several classic CKD complications.

flexible bronchoscopy-guided intubation is often preferred because it:

visualizes injury directly
guides tube placement safely
avoids false passage creation

Chest X-ray changes often:
lag behind clinical status
persist even after improvement
Clinical evaluation is MUCH more important acutely.

Radical Hysterectomy is usually performed for:
cervical cancer
gynecologic malignancy

Procedure includes:
removal of parametrial tissues
extensive pelvic dissection

The ureter must be dissected/free from surrounding tissue, making injury risk much higher.

Massive hemolysis →
lots of free hemoglobin →
haptoglobin binds all of it →

haptoglobin stores become depleted.

Hemolytic Anemia means:
RBCs are being destroyed prematurely.
When RBCs break apart:
they release intracellular contents into blood.

Haptoglobin is a: plasma protein made by the liver
Its job is to: bind free hemoglobin in the blood.

emergency thoracotomy is a life-saving surgery where the chest is rapidly opened in a critically unstable trauma patient.

Cardiac Troponin is a protein released from:
injured cardiac muscle cells.

It is the:
most sensitive and specific biomarker for myocardial infarction.

Dilated Cardiomyopathy is characterized by:

ventricular dilation
impaired systolic function
reduced ejection fraction

The heart becomes:

enlarged and weak.

Cardiomyopathies are generally considered:

primary myocardial diseases

not secondary to:
coronary artery disease
valvular disease
congenital shunts

b. Asthma patients may develop: bronchospasm because beta-2 receptors in bronchi are blocked.
c. Third-degree AV block already has: severe conduction failure. Beta-blockers slow AV conduction even more.
d. Beta-blockers lower heart rate further.

Heart Failure with Reduced Ejection Fraction is actually:
a major indication for beta-blockers.

Even though beta-blockers reduce contractility acutely, long-term they:
reduce sympathetic overactivation
reduce cardiac remodeling
reduce arrhythmias
improve survival
improve EF

c. Mandibular division of trigeminal nerve (CN V3)
d. Eye movements controlled by CN III/IV/VI
e. Trigeminal nerve (CN V) facial sensation

b. Irreversible injury begins after roughly:
20–40 minutes of severe ischemia
e. Alkaline Phosphatase is NOT a myocardial infarction biomarker. ALP is associated mainly with:
biliary obstruction bone disease

b. dyspnea is VERY common but not a mandatory diagnostic criterion
c. because IPF is idiopathic, if another cause exists, it's not IPF

Idiopathic Pulmonary Fibrosis is:
chronic progressive fibrotic lung disease characterized by:
UIP pattern (usual interstitial pneumonia)

Normal Pressure Hydrocephalus is characterized by:
enlarged ventricles
impaired CSF absorption
usually normal lumbar puncture opening pressure

Classic triad:
"wet, wobbly, wacky"

Meaning:
urinary incontinence
gait disturbance
cognitive decline

NPH is:
a mechanical CSF circulation problem

NOT:
meningitis
encephalitis
inflammatory disease

So:
cells are normal
glucose is normal
protein is usually normal

Negative symptoms mean:
loss/reduction of normal functions.

Think:
reduced emotion
reduced motivation
social withdrawal

d. hypobulia = decreased motivation/willpower.
autism = social withdrawal/detachment

Osteoarthritis is primarily: a degenerative cartilage disease —not a systemic autoimmune inflammatory disease.

So, OA treatment focuses on symptom control and function NOT immunosuppresion

The serologic window period is:
the time between infection and detectable antibodies.

During this time:
the microorganism is already in the body
the immune system has recognized it
antibody production has started/is starting

BUT antibody tests may still be:
negative.

Horner Syndrome occurs due to interruption of:
sympathetic nerves supplying the eye and face.

CLASSIC TRIAD OF HORNER SYNDROME
“PAM”
Ptosis
Anhidrosis
Miosis

a. eyeball sits deeper inside the orbit
b. smaller pupil due to loss of sympathetic dilation
c. yea
e. loss of sympathetic sweating

A healthy lung gives:
resonant percussion.

Hyperresonance means:
excess air

This occurs when:
lung is overinflated
OR
air is in pleural space.

Classic examples:
emphysema
pneumothorax

b. consolidation creates dull percussion
e. pleural fluid also causes dullness

inotropy = force of cardiac contraction.
Positive inotropes:
increase myocardial contractility.

b. dobutamine strongly increases contractility
primarily used specifically for inotropic support
c. milirinone strongly increases contractility
also vasodilates

d. Macrosomia =
excessively large fetus

usually associated with:
maternal diabetes
obesity

smoking causes smaller babies not larger

c. aka bone spurs
d. = increased bone density beneath cartilage bc
damaged cartilage increases stress on underlying bone
e. cartilage is lost in OA

Erysipelas is:
an acute superficial skin infection
involving:

upper dermis
superficial lymphatics

Classic features:
bright red plaque
sharply demarcated borders
warmth
fever

Often affects:
face
lower extremities

b. Streptococcus pyogenes Infection:
spreads rapidly through superficial lymphatic
produces sharply demarcated inflammation

This gives erysipelas its:
classic raised well-defined border.

Discoid Lupus Erythematosus is:
a chronic cutaneous form of lupus

characterized by:
erythematous scaly plaques
follicular plugging
scarring

Usually affects:
sun-exposed areas.

Pleural effusion is the abnormal accumulation of fluid in the pleural space

Transudative fluid is:
low protein, low LDH.

RIPE therapy
Rifampicin
Isoniazid
Pyrazinamide
Ethambutol

fibrous amniotic bands constrict fetal parts

→ causing:
limb deformities
constriction rings
amputations

Amniotic Band Syndrome (embryological/congenital malformation)
occurs when:
strands of ruptured amnion wrap around fetal structures.

Mycobacterium avium Complex Infection causes:
atypical mycobacterial disease

especially in:
AIDS patients
immunocompromised individuals
It is NOT classical tuberculosis.

When mast cells are activated, (allergic reactions and anaphylaxis) they release mediators in TWO ways:
1. Preformed mediators
Stored in granules.
Released immediately.

2. Newly synthesized mediators
Made AFTER activation.

Prostaglandin D2 is:
synthesized AFTER mast cell activation.
It is derived from:
arachidonic acid metabolism via cyclooxygenase.
Not stored in granules.

Extraocular muscles are:
skeletal muscles outside the eyeball
that control: eye movement.

There are 6 classic extraocular muscles:

superior rectus
inferior rectus
medial rectus
lateral rectus
superior oblique
inferior oblique

Lumbar Spinal Stenosis occurs when:
the spinal canal narrows

→ compressing:
cauda equina
lumbar nerve roots

What is neurogenic claudication?

Patients develop:
leg pain
numbness
weakness
heaviness

especially:
while walking or standing.

Symptoms improve with:
spinal flexion/sitting.

Classic clue:
patient leans forward on shopping cart.
(“shopping cart sign”)

modern HCV therapy is extremely effective!

Asperger syndrome is generally a milder autism spectrum presentation
with preserved intelligence and language development.

phenotype = observable characteristics/clinical expression
NOT laboratory exposure measurements.

This patient has:

BOTH
unstable fracture
AND
neurologic deficit (paraparesis)

Classic indications for operative management.

Zenker Diverticulum is: an outpouching of mucosa

through a weak area called:
Killian triangle.

It occurs:
just above the upper esophageal sphincter.

Erysipelas is:
an acute superficial skin infection
involving:

upper dermis
superficial lymphatics

Classic features:
bright red plaque
sharply demarcated borders
warmth
fever

Often affects:
face
lower extremities

Tubulointerstitial Nephritis is characterized by:

interstitial inflammation and tubular injury.

Common causes:

drugs (NSAIDs, antibiotics)
infections
autoimmune disease

TIN primarily affects:
renal tubules
interstitium

NOT the glomeruli. It's in the name!

Plasmodium falciparum

causes:

the most dangerous malaria
severe complications
malignant malaria.

Plasmodium falciparum Malaria infects:

RBCs of ALL ages

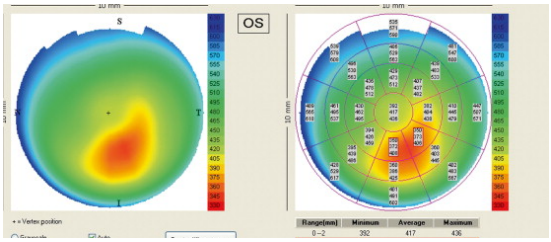
So parasitemia can become:
extremely high.

This leads to:
severe hemolysis
microvascular obstruction
organ failure

PV is a myeloproliferative neoplasm with OVERproduction of blood cells.

So you expect:
increased marrow activity
splenomegaly
elevated blood cell counts

NOT low cellularity or cytopenias.



Pemphigus Vulgaris is:
an autoimmune blistering disease

caused by antibodies against:
desmogleins

which are involved in:
keratinocyte adhesion.

This causes:
acantholysis
(loss of cell-to-cell adhesion).

Ascites is:
free fluid in the abdomen.

a. Nephrotic Syndrome causes:
hypoalbuminemia
→ decreased oncotic pressure
→ fluid leaks into tissues/peritoneum
→ ascites.

Common mechanisms:
portal hypertension
hypoalbuminemia
malignancy
heart failure

a. Kernig Sign:
hip flexed
knee extension causes pain/resistance

b. wrong, romberg tests propioception
c. brudzinski = passive flexion of the neck induces involuntary flexion of the hips and knees
d. yea

Gilbert Syndrome is:
a benign inherited disorder
caused by:

reduced UDP-glucuronyl transferase activity.

This enzyme conjugates bilirubin in the liver.

Because bilirubin is not conjugated efficiently:

unconjugated bilirubin increases.

Nodular Melanoma grows:

vertically downward early
rather than spreading superficially first.

This means:

deeper invasion earlier
rapid progression
earlier metastasis
worse prognosis

Most common cause of postpartum hemorrhage overall is usually uterine atony

BUT uterine atony causes:
a soft, boggy uterus.

This vignette specifically says:
firmly contracted uterus.

KEY CONCEPT
Firm uterus + continued bright red bleeding
→ think:
genital tract trauma/laceration.

Uterine atony = failure of the uterus to contract after delivery

The key concept:
steatorrhea = fat malabsorption.
Usually results from:
pancreatic enzyme deficiency
OR
intestinal malabsorption.

Steatorrhea causes:

bulky stools
greasy/foul-smelling stools
floating stools
oily appearance

Occurs when:
fats are not properly digested or absorbed.

asthma is primarily an inflammatory disease.
Therefore the cornerstone of chronic treatment is:
anti-inflammatory therapy.

b. Cystic Fibrosis causes:
thick mucus
chronic lung infection
copious sputum

d. Bronchiectasis is a chronic lung disease marked by permanent dilation and thickening of the bronchi due to repeated inflammation or infection.
Bronchiectasis classically causes:
large volumes of purulent sputum.

Pneumothorax occurs because:
fractured rib edges can puncture the pleura/lung.

This allows air to leak into:
pleural space.

Atopic Dermatitis is:
a chronic itchy inflammatory skin disorder.

Classic features:
pruritus (itching)
erythema
dry skin
excoriations
lichenification

MOST IMPORTANT SYMPTOM
Itching (pruritus)

This is the hallmark symptom.

High-yield phrase:

“the itch that rashes.”

a. Furosemide causes:
increased potassium loss
The effect worsens with: higher dose.

b. Morphine depresses respiratory drive.
This is: strongly dose-dependent.

e. Insulin causes:
hypoglycemia in dose-dependent fashion.

Chronic urticaria is a long-lasting skin condition defined by
the recurrence of hives (wheals) and itching for more than six weeks.

Pulmonary Sequestration is:
isolated nonfunctioning lung tissue
that: does NOT communicate normally with bronchi
AND
receives blood from systemic arteries (usually aorta)

This abnormal vascular supply is the defining feature

air leaks from the trachea into surrounding tissues.

This causes:

subcutaneous emphysema
respiratory distress
persistent pneumothorax

Asthma
→ reversible obstruction

COPD
→ persistent/nonreversible obstruction

ANTERIOR MEDIASTINUM = “4 Ts”

Classic mnemonic:
Thymoma
Teratoma (germ cell tumor)
Thyroid lesions
Terrible lymphoma

Thymoma = a tumor arising from the thymus gland

debridement = medical removal of dead, damaged, or infected tissue from a wound.

Psoriasis is a chronic, immune-mediated papulosquamous skin disease that causes thick, red, scaly plaques on the skin.

Pseudoreminiscence
= a real memory placed in the wrong time

Confabulation = unconsciously making up stories/memories to fill memory gaps.

Hyperbulbia = excessively increased activity/drive/will.

Stupor = severe decrease in responsiveness

Ageusia = inability to taste
Abulia = lack of motivation/willpower

Analgesia = inability to feel pain
Hypopathy = decreased emotional/ sensory responsiveness
Sensetopathy = strange abnormal body sesnations without medical explanation

Atopic Dermatitis is:

a chronic itchy inflammatory skin disease

commonly associated with:

asthma
allergic rhinitis
family history of atopy

Follicle-Stimulating Hormone stimulates:
follicular growth/development

BUT:
LH surge triggers ovulation itself.

What happens in the ovarian cycle?

During the menstrual cycle:

follicles develop under hormonal stimulation
one becomes the dominant Graafian follicle
ovulation then occurs

The hormone that triggers:

final maturation and ovulation

is:

luteinizing hormone (LH).

Chronic Pancreatitis causes:
pancreatic exocrine insufficiency.

The damaged pancreas produces:
less digestive enzymes,

including:
pancreatic elastase.

Therefore:
fecal elastase DECREASES.

Compartment syndrome = dangerously increased pressure inside a closed muscle compartment

Compartment Syndrome is:
an orthopedic emergency.

It most commonly occurs:

after fractures
crush injuries
major trauma

especially:
tibial fractures.

Third Heart Sound occurs: just after S2 during:

rapid ventricular filling in early diastole.

It creates the classic:
“ventricular gallop.”

S3 is:
low-pitched.

Therefore it is best heard with:
the bell of the stethoscope.

Usually heard best at:
apex
left lateral decubitus position

Prolactinoma is:
a pituitary adenoma producing prolactin.

Common symptoms:
galactorrhea
amenorrhea
infertility
decreased libido
hypogonadism

Dopamine normally:
inhibits prolactin release.

So dopamine agonists:
decrease prolactin secretion
shrink tumor size

This is why they are:
first-line treatment.

a. TCA
b. SNRI
c. yea thats the SSRI bro —> “SERtraline = SERotonin”
d. SARI
e. NaSSA

SSRIs:
Sertraline
Fluoxetine
Citalopram
Escitalopram
Paroxetine

Granulomatosis with Polyangiitis is:
an autoimmune vasculitis

classically involving:
ENT + lungs + kidneys.

Affects SMALL AND MEDIUM VESSELS, NOT large vessels like the aorta

Cancer Antigen 125 is a tumor marker mainly associated with:
epithelial ovarian cancer.

Herpes Simplex Keratitis classically causes:
branching (“dendritic”) corneal ulcers.

Symptoms:
eye pain
photophobia
tearing
blurred vision

Antiviral therapy
And:

avoid topical corticosteroids,
because they worsen HSV epithelial infection.

Mydriatics:
reduce ciliary spasm
decrease pain
help prevent synechiae

Ascending Cholangitis usually occurs because:

a bile duct stone obstructs the common bile duct

→ bile stasis
→ infection.

Classic presentation:

Charcot triad
fever
jaundice
RUQ pain

most important -> RELIEVE THE OBSTRUCTION
ERCP = Endoscopic Retrograde Cholangiopancreatography

Tuberculosis treated by “amp” and “son”

a. Human Immunodeficiency Virus Infection screening is universally recommended in pregnancy.
Reason:
prevents vertical transmission.

b. Congenital syphillis can be devastating as well

Vasovagal Syncope is:
the most common type of fainting.

Mechanism:
sudden vagal activation
bradycardia
vasodilation
→ transient cerebral hypoperfusion.

Barrett Esophagus occurs when:
normal squamous epithelium

is replaced by:
intestinal-type columnar epithelium.

Usually due to:
chronic GERD.

Parathyroid Hormone normally:
increases blood calcium levels.

It does this by:
increasing bone calcium release
increasing renal calcium reabsorption
activating vitamin D

10% of 1000 = 100 HIV positive, 900 negative.
Apply sensitivity: 95%, so 95 of 100 test positive, 5 test negative, aka true positives = 95
Apply specificity: 92% correctly negative among 900 HIV; 0.08 x 900 = 72 false positives
Calculate PPV = True positives/all positive tests = 95/ 95 + 72 = 0.57

Hydatidiform Mole involves:
abnormal trophoblastic tissue proliferation.

A hydatidiform mole is a gestational trophoblastic disease characterized by abnormal proliferation of trophoblastic tissue, leading to a nonviable pregnancy.

Since trophoblasts produce:
hCG,

the levels become:
markedly elevated and rapidly rising.

Systemic lupus erythematosus (SLE) is a chronic multisystem autoimmune connective tissue disease in which the immune system attacks the body's own tissues, causing widespread inflammation and organ damage.

Sulfasalazine is more commonly used for:
rheumatoid arthritis
inflammatory bowel disease

Importantly:
sulfasalazine can sometimes induce lupus-like reactions.

Koebner Phenomenon means:
new lesions appear where skin was injured.

Examples of trauma:
scratching
cuts
pressure
burns

Cryoprecipitate =
fibrinogen replacement !!!!

Cryoprecipitate contains:

fibrinogen
factor VIII
factor XIII
von Willebrand factor
fibronectin

Prepared from frozen plasma, hence cryo

Celiac Disease is:
an autoimmune reaction to gluten

causing:
small intestinal villous atrophy.

This leads to:
malabsorption
diarrhea
poor growth

Classic biopsy findings:
villous atrophy
crypt hyperplasia
intraepithelial lymphocytes

Osteoporotic Fracture occurs when:
normal/minor force causes fracture
because bone is weakened by osteoporosis.

Classic mechanism:
fall from standing height or less.

Neovascular Age-Related Macular Degeneration occurs when:
abnormal blood vessels grow beneath the retina.

These vessels:
leak fluid
bleed
damage the macula

leading to:
rapid central vision loss.

VEGF =
vascular endothelial growth factor

It stimulates:
abnormal vessel growth.

Anti-VEGF drugs block this process.

Acute Scrotum refers to:
sudden onset scrotal pain/swelling.

Main dangerous diagnosis:
testicular torsion.

Testicular torsion is a urological emergency
in which a testicle twists on the spermatic cord, cutting off its blood supply.

d. Epididymoorchitis is the combined inflammation
or infection of the epididymis and testis.

c. cogwheel rigidity
d. slowness of movement

CLASSIC DISTRIBUTION
“Stocking-glove” sensory loss
(distal hands and feet)
polyneuropathy.

dialysis requires access to:
bloodstream (hemodialysis)
OR
peritoneal cavity (peritoneal dialysis).

Ventriculoperitoneal Shunt is used to treat:
hydrocephalus.

It drains:
cerebrospinal fluid (CSF)
from brain ventricles into the peritoneal cavity.

It has NOTHING to do with dialysis access.

b. antibiotics NOT routinely used for prevention of pneumonia in influenza
c. excessive therapy
e. acyclovir requires renal dose adjustment, high dose risks nephro and neuro toxic

Pleural Empyema is defined by:
pus (purulent fluid) in the pleural space.

This is the hallmark feature.

Usually caused by:
pneumonia
lung abscess
thoracic surgery/infection

It usually develops as a complication of pneumonia or chest surgery, l
eading to lung compression, pain, and difficulty breathing.

b. empyema is an EXUDATE, not a transudate
c. no eosinophilia
d. bloody pleural fluid suggests other stuff like trauma
e. no lymphocytes. empyema is usually neutrophil predominant

Latent Tuberculosis is:
NOT contagious.

So contact with someone who has latent TB:
does NOT require active contact screening.

c. Tumor Necrosis Factor Inhibitor can reactivate latent TB.

Tuberculosis passive screening focuses on:
symptomatic individuals presenting themselves for care.

b. is ACTIVE contact tracing not passive
c. also active
e. again, active screening

Memory trick
“5 and 5”
5 days
5 years

In children, the relative percentages of:
neutrophils
lymphocytes

change with age.

There are:
TWO physiologic crossings.

Why C is incorrect:
Stable irreversible obstruction
is much more typical of:

Chronic Obstructive Pulmonary Disease.

Asthma obstruction is:
reversible and variable,
especially early/untreated disease.

a neuropsychiatric phenomenon characterized by
an excessive tendency to notice and react to every visual
stimulus in the environment

d. trigeminal nerve controls facial sensation, chewing muscles
e. Oculomotor controls eyes

Breech Presentation means:
buttocks/feet present first instead of the head.

b. low parity means only one or two previous pregnancies seen to completion
e. more water means fetus can move around more

c. Placenta Previa can block engagement of the presenting part,
favoring:
transverse or breech lie.

e. Hyperkalemia commonly occurs in kidney insufficiency because kidneys cannot excrete potassium properly.

b. Esophageal bougienage is a mechanical dilation procedure that widens a narrowed segment of the esophagus (esophageal stricture) using graduated dilators known as bougies.

c. Gastrostomy is a procedure where:
a feeding tube is placed directly into the stomach

maybe correct???

Hyperemesis gravidarum (HG) is a severe pregnancy-related condition marked by persistent nausea and vomiting that leads to dehydration, weight loss, and electrolyte imbalances.

Conditions with VERY high hCG often have more severe vomiting:
molar pregnancy
multiple gestation

Migraine With Aura involves:
transient neurologic symptoms BEFORE headache.

Usually lasting:
5–60 minutes.

Aortic Valve Replacement with a:

biological prosthesis,

patients are commonly treated with:

blood pressure optimization
heart failure medications if needed
anticoagulation ONLY in selected cases (like AF)

c. means increased RBC in blood
not considered a classic hallmark feature of IPF

Idiopathic Pulmonary Fibrosis is:

a chronic interstitial lung disease

causing:

fibrosis
restrictive lung disease
impaired gas exchange

Mitral Stenosis usually results from:

rheumatic heart disease.

The narrowed valve obstructs:
left atrial → left ventricular flow.

This causes:
left atrial enlargement
pulmonary congestion
pulmonary hypertension

a. bc of congestion
b. venous hypertension can rupture small bronchial veins
c. enlarged left atrium can compress left recurrent laryngeal nerve
d. a fib yes
e. syncope more classically associated w aortic stenosis and arrhythmias

b. Oxidative stress damages endothelium and oxidizes LDL cholesterol. Oxidized LDL is very important in plaque formation.

c. Nitric Oxide normally:
vasodilates
inhibits platelet aggregation
protects endothelium.
In atherosclerosis:
NO bioavailability decreases.

d. endothelin promotes vasoconstriction, endothelial dysfunction

a. beta blockers help control tachy and other cardiovasc symptoms
e. duh

hypothyroidism —> SLOWED METABOLISM
patients become:
cold, SLOW, DRY, BRADYCARDIC

Placenta accreta spectrum:

the “roots” grow:

TOO deep into the uterus wall.

That makes the placenta:

stuck.

So after delivery,
it does NOT come off normally,
and this can cause:

very dangerous bleeding.

a. placenta previa is when the placenta is sitting
too low in the uterus near the birth canal
blocks the exit for the baby to come out
placenta can tear and bleed due to this

300 niggas, we the protein trojans

Actinic keratosis (AK) is a common premalignant skin condition caused by
long-term exposure to ultraviolet (UV) radiation,
typically from the sun or tanning devices.

aka WHITE PPL DISEASE. acaucasian keratosis

Dysgerminoma is a rare malignant ovarian germ cell tumor derived from
primordial germ cells of the embryonic gonad.
It is the female counterpart of testicular seminoma

a. AFP —> yolk sac tumor
b. nah, sertoli tumors
e. not produced

Rhegmatogenous Retinal Detachment occurs when:
a retinal tear forms
and fluid passes underneath the retina.

c. degeneration weakens the entire retina, makes tears more likely
e. myopic eyes are longer, stretches retina, inc detachment risk

means stool has leaked into the abdominal cavity.

Hartmann Procedure involves:

removing diseased sigmoid colon
closing rectal stump
creating end colostomy

Babinski Sign is:
extension (upgoing) of the big toe
when the sole of the foot is stroked.

Typical UMN sign

excess cerebrospinal fluid (CSF) accumulates within the brain's ventricles without a sustained increase in CSF pressure.

"Wet, Wobbly, Wacky"
Symptom

Meaning:

Wet
Urinary incontinence

Wobbly
Gait disturbance

Wacky
Cognitive decline/dementia

lymphocytic —> viral, not bacterial

A pheochromocytoma is a rare catecholamine-secreting tumor arising from chromaffin cells in the adrenal medulla.

These neuroendocrine tumors release excessive epinephrine and norepinephrine, often causing episodes of dangerously high blood pressure.

Ulcerative Colitis is a disease where:
the immune system attacks the lining of the large intestine.

d. Plasma cells accumulate near the base of the mucosa.

Crohn Disease is when:
the immune system attacks the digestive tract in PATCHES (focal lesions).

Unlike ulcerative colitis,
Crohn disease can affect:
any part of the GI tract

from:
mouth
to
anus.

And the inflammation goes:
DEEP through the bowel wall. (transmural)

Crohn =
“Cobblestones and Cracks”

c. comedone is a clogged pore

“Prolactin” = the hormone that helps make breast milk
d. High prolactin suppresses ovulation and estrogen production, so periods may stop completely.
e. If ovulation is suppressed, pregnancy becomes difficult.

Pneumonia fills the alveoli with:

pus
inflammatory fluid
debris

So oxygen cannot cross into blood.

Dystocia (failure of labor to progress)

a. Red blood cells contain LOTS of potassium inside them.
c. same idea
d. The kidneys are the MAIN way the body removes potassium.
e. In acidosis: excess H+ enters cells, to balance charges K+ leaves, so serum K+ rises

Imagine tiny sharp glass crystals suddenly forming inside a joint.

The immune system sees them and goes:

Gout is a type of arthritis caused by:
uric acid crystal buildup in joints
These crystals trigger a HUGE inflammatory reaction.

“ATTACK!!”

Chorioamnionitis is:
infection of the fetal membranes and amniotic fluid

The Bishop score is used in obstetrics to determine:
how “ready” the cervix is for labor

fetal head station = how low baby is
cervical effacement = how thin

these are antihistamines

Adenosine causes maximal vasodilation so the true impact of the stenosis can be measured.

Pleurodesis is a procedure used to:
stick the lung to the chest wall

It intentionally creates:
pleural adhesions

so air or fluid cannot keep accumulating

Transudate = pressure problem
Exudate = inflammation/infection!!!

A pleural effusion means:
fluid buildup around the lung

Specifically:
fluid accumulates in the pleural space

The Barthel Index is a scale used to measure:
how independent a person is in daily activities

The uvula visibly pulsates because of the hyperdynamic circulation in severe AR.

a b and d more for entry wounds

weight LOSS bc cells cannot use glucose properly, body starts breaking down fat and muscle
edema no, ore like neprotic syndrome or smth
appetite NO, T1DM causes POLYPHAGIA

3 Ps of T1DM:

POLYURIA
POLYDIPSIA
POLYPHAGIA

Type 1 diabetes is a disease where:

the body stops making insulin
Usually because the immune system destroys:
pancreatic beta cells

Without insulin:
glucose cannot enter cells properly
blood sugar rises a lot

PHOTOALLERGIC = immune-mediated
delayed reaction
Type IV hypersensitivity
requires prior sensitization

PHOTOTOXIC = direct damage
NOT immune-mediated
more like a chemical sunburn

photoallergy = allergic skin reaction triggered by light + a chemical

Iron deficiency anemia happens when the body does not have enough iron to make normal hemoglobin.

Without iron:
hemoglobin production decreases
red blood cells become small and pale

Hgb : hemoglobin
MCV: RBC size
MCH: amount of Hb in RBC
RDW: variation in RBC size

Sarcoidosis is an inflammatory disease where the body forms:
noncaseating granulomas

(organized clusters of immune cells)

It most commonly affects:
lungs
hilar/mediastinal lymph nodes

a. is CLASSIC radiological finding for sarcoidosis

d. Ground-glass opacities CAN occasionally occur,
BUT they are NOT the classic/common hallmark radiologic finding of sarcoidosis.

Ground-glass changes are more strongly associated with:

infections
pulmonary edema
interstitial lung diseases
COVID
hypersensitivity pneumonitis

Troponin I rises because:

heart muscle cells die and leak proteins.

Unstable angina:

ischemia only
NO myocardial necrosis
troponins negative

MI:

myocardial necrosis
troponins positive

Sjögren syndrome is an autoimmune
disease where the immune system attacks:

salivary glands
lacrimal (tear) glands

This causes:

Intussusception happens when:
one part of the intestine slides into another part
like a telescope collapsing into itself.

thyroid eye disease
most commonly associated with:
Graves disease.

The immune system attacks tissues behind the eye:
muscles
fat
connective tissue

This causes the eyes to bulge forward.

PCR detects:
toxin-producing genes
This is one of the major modern diagnostic tests.

too much cerebrospinal fluid (CSF) in the brain
This increases pressure and enlarges the ventricles.

marfan pts are usually abnormally tall

epistaxis = nosebleed

This combination suggests:

fluid retention/edema disorders

especially:

hypothyroidism (myxedema)
heart failure
renal disease

Amyotrophic lateral sclerosis is a progressive neurodegenerative disease that damages:
BOTH upper and lower motor neurons

Electromyography is VERY important in ALS diagnosis.

EMG shows:

denervation
fasciculations
widespread motor neuron involvement

new-onset high blood pressure and signs of organ damage

Fibromyalgia is a condition involving:
chronic widespread pain
without muscle destruction or inflammation.

It is thought to involve:
abnormal pain processing in the nervous system

If the clip type/material is unknown,
it could potentially be:

ferromagnetic

A strong MRI magnet could move the clip →
catastrophic intracranial bleeding.

Hypospadias
urethral opening on underside of penis

Cryptorchidism
undescended testes

Epispadias is a urethral abnormality, but NOT a classic indicator of DSD

Paraplegia means:
paralysis of both legs

Usually caused by damage to the:
thoracic spinal cord

b. marfan affects connective tissue and skeleton mainly
c. hypertension can cause heart problems but not myocarditis

Polymyalgia rheumatica is an inflammatory condition seen mostly in:
older adults

It causes:
aching pain
stiffness

especially in:
shoulders
neck
hips/pelvic girdle

a. Craniotabes means:
soft skull bones
b. A Harrison groove is:
an inward indentation along the lower ribs
c. Frontal bossing means:
prominent forehead
This occurs because skull bone mineralization is abnormal.

Rickets is a disease where growing bones become:
soft and weak

Usually because of:
vitamin D deficiency

which causes poor calcium/phosphate mineralization.

Some hypersensitivity reactions are caused by:
antibodies circulating in the blood

If you transfer serum (which contains antibodies), you can transfer the reaction.

Type IV hypersensitivity is different.
It is:
T-cell mediated
NOT antibody mediated.

Liver cirrhosis damages the liver.
Normally the liver helps:
metabolize hormones
including:

estrogen

When the liver fails:
→ estrogen accumulates.

This causes:
hyperestrogenism

especially in men.

c. a consequence of diabetes management; imagine a pt who injects insulin
but then forgets to eat. the insulin still pushes glucose into cells, so blood sugar falls dangerously low

e. MORE elastic

Asystole means:
no electrical activity in the heart

Flatline.

The heart is not effectively beating.

This is a:
cardiac arrest rhythm

Thyrotoxicosis means:
too much thyroid hormone effect in the body

The blood vessels in the face become overly sensitive.

The face gets:

red easily
flushed
irritated

Certain things trigger flare-ups.

In PCOS:
ovulation often does not occur
follicles persist
androgens are converted into estrogens in fat tissue

So patients often have:
chronically elevated estrogen exposure

Echinococcosis is a parasitic disease caused by:
Echinococcus tapeworm larvae

The larvae form:
hydatid cysts

inside organs.

Addison disease =
“Bronze + low salt + low BP”

Think:

hyperpigmentation
hyponatremia
hypotension
hyperkalemia

d. pulmonary contusion/lung bruising
e. air + fluid/blood in pleural space

It works by:

reducing calcium release from skeletal muscle sarcoplasmic reticulum.

This stops the hypermetabolic muscle contraction.

Onychomycosis is:
a fungal nail infection

Usually affecting:
toenails more than fingernails

Uterine fibroids (leiomyomas) are:
benign smooth muscle tumors of the uterus

Very common in women of reproductive age.

c. fibroids usually cause MORE bleeding, not absent menstruation

“sec” for secondary

urea cycle is how body removes ammonia, which is produced when proteins are broken down. because ammonia is very toxic especially to the brain, the liver converts it into urea which is safer and excreted in urine

so a disorder of the urea cycle means ammonia CANNOT be converted, hence hyperammonemia

Estrogen levels fall after menopause.

Low estrogen causes:
hot flashes
vaginal dryness
bone loss

One major effect of estrogen therapy is:
protection of bone.

c. More amniotic fluid means:
more space for fetal movement

Bronchiectasis is a disease where the bronchi become:
permanently widened and damaged.

This leads to:
mucus buildup
chronic infections
chronic productive cough

Subglottic stenosis means:
narrowing of the upper airway
just below the vocal cords.

This obstructs airflow,
especially during:
inspiration.

d. asthma causes WHEEZING not crackles!

Hypercapnic respiratory failure means:
too much CO_2 in the blood

because the lungs cannot ventilate properly.

$PaCO_2 > 45$ mmHg
Usually accompanied by:
hypoxemia

they can

true but technically not specific criteria yk

Statins are VERY strongly recommended for:
✅secondary prevention

Meaning:

the patient ALREADY had cardiovascular disease.

Sarcoidosis is often:
mild,
self-limited,
and may go away on its own.

So:
NOT every patient needs steroids.

We use systemic glucocorticoids (like prednisone) when:

organs are in danger,
symptoms are severe,
or lung function worsens.

Why use the radial artery + cephalic vein?

This combination:

is usually at the wrist,
is easy to access,
has fewer complications,
preserves bigger vessels for later if needed.

This is called:

a radiocephalic fistula

So surgeons connect:
an artery to a vein

The T-score compares your bone density to:
a healthy young adult.

“2.5 = osteoporosis
arrives”

Psoriasis is a disease where:
skin cells grow WAY too fast.
Normally skin cells slowly move upward and shed.

In psoriasis:
the immune system overstimulates the skin,
skin cells pile up too quickly,
thick scaly plaques form.

What is Auspitz sign?

If you gently scrape off the psoriasis scales:

tiny pinpoint bleeding appears.

c. thats gout
e. thats typical for rheumatoid
arthritis bc it can destroy
cervical ligaments and bone

In lupus, the immune system gets confused and attacks the body.

It especially likes attacking:

skin,
kidneys,
joints,
blood cells.

The joint pain in lupus is usually:

inflammatory arthritis

BUT importantly:

lupus usually does NOT destroy joints badly like rheumatoid arthritis does.

b. Low white blood cell count.

In lupus:

immune destruction,
bone marrow suppression,
medications

can lower WBCs.

e. Lupus commonly causes anemia through several mechanisms:
chronic inflammation,
autoimmune hemolysis,

c. cyanides prevent cell from using oxygen 💀

pregant b4 19

wouldnt nominate you to cut this

b/c its small

Think of the liver like:
a giant chemical factory.
Inside the factory are:
machines,
workers,
energy systems.

Phase I reactions depend heavily on:
delicate, energy-demanding enzyme machinery.

Specifically:
cytochrome P450 enzymes (CYP450)

Graves disease is an:
autoimmune hyperthyroidism

The immune system makes antibodies that:
overstimulate the thyroid gland.

So the thyroid produces:

too much T3,
too much T4.

The body basically gets stuck in:

“fast metabolism mode.”

The whole thyroid is overactive.

So the ENTIRE gland:

takes up iodine diffusely.

The scan lights up evenly.

cho for chock

gall bladder sits on the right side of the body, hence dextra

The β-lactamase inhibitor helps block bacterial resistance enzymes.

A gallstone can get stuck at:
the ampulla of Vater

where:

bile duct,
pancreatic duct

empty together.

The blockage traps pancreatic enzymes inside the pancreas.
Then:

autodigestion occurs.

Because the:
blood-brain barrier
protects the brain from these circulating amyloid light chains.

“Calculous” means:
caused by gallstones.

A gallstone blocks:
the cystic duct

So bile cannot leave the gallbladder.

The gallbladder becomes:
swollen,
inflamed,
infected.

c. This is a surgical bypass connecting:

common bile duct
to
jejunum.

This is usually used for:
biliary obstruction,
tumors,
complex biliary reconstruction.

NOT routine treatment for acute calculous cholecystiti

half-life
of a medicine means:

how long it takes for HALF of the drug to disappear from the blood.

Imagine a test is trying to find:

sick people.

Sensitivity asks:

“If a person REALLY has the disease, how good is the test at catching them?”

A highly sensitive test:

misses very few sick people,
catches almost everyone with disease.

In IPF, the lungs slowly become:

scarred and stiff.

Normal lungs are soft like:
🧽 sponges.

Fibrosis turns them into:

hard scar tissue.

banon method is banned

d. ozempic is a GLP-1 agonist. GLP = gets less plate
e. SGLT -2 = sugar leaves through toilet

“MycoBACTERIUM = NTM”

But:

MycoPLASMA ≠ mycobacteria

Many DOACs are removed through:

the kidneys.

If kidneys don't work well:

the drug builds up,
blood becomes "too thin,"
bleeding risk rises.

So before starting them, we must check:

kidney function.

Low ferritin
Ferritin reflects:
iron stores.
Low ferritin =
body iron stores are empty.
This is one of the BEST indicators of iron deficiency.

Microcytosis
RBCs become:
small
because they cannot make enough hemoglobin.
So:
MCV decreases.

Low transferrin saturation
What is transferrin?
Transferrin carries iron in blood.
In iron deficiency:
there is very little iron available,
so transferrin is:
poorly loaded.
Thus:
transferrin saturation decreases.

c. leukemia cells break apart rapidly, spilling their contents including K+ and PO2+ into the blood

Acute Lymphoblastic Leukemia is a cancer of immature white blood cells.

In: hyperleukocytosis

the blood becomes packed with:
HUGE numbers of leukemia cells.

Sometimes:
100,000 WBCs/μL.

The blood gets:

THICK AND SLUDGY!!!

This can clog small blood vessels.

aspirin not enough bc its just antiplatelet. dialysus circuit clogging involves coag cascade + fibrin formation

uterus where only one side develops properly, hence unicorn

pnuemonia —> fluid, bacteria, pus in lung tissue, so WET crackles
dry crackles —> fibrosis, interstitial lung disease, etc

Osteomyelitis
means:
bone infection.

“Staph sticks to stuff”

Including:

bone,
valves,
prosthetics.

“Hematogenous” means:

spread through the blood.

So bacteria travel in the bloodstream and infect bone.

Burkitt lymphoma is a:
very fast-growing B-cell cancer.
It can double in size extremely quickly.

b. facial: endemic (african) form

The distribution of eczema (atopic dermatitis) changes with:
AGE.

Blunt airway injuries usually happen at:
FIXED points
where the airway cannot move freely during sudden trauma

a, c and d correct

“Paravertebral” means:
beside the vertebral column (spine).

ulcer and cancers

the baby did not get enough oxygen around the time of birth.

b. red bullseye is a clinical diagnosis, no serology needed initially
d. antibodies can exist for years, diagnosis depends on symptoms + exposure + testing
e. serum IgG not articular fluid

[redacted]

[redacted]

[redacted]

"Clue cells give the clue"
Clue cells →
bacterial vaginosis.

[redacted]

GENTtrified music is bad for the ears

[redacted]

[redacted]

PTH increases:

calcium in the blood.

In primary hyperparathyroidism:

too much PTH is produced,
calcium becomes HIGH.

[redacted]

im formin a better lifestyle

[redacted]

stereotype: Patient repeats the same phrase over and over.
logorrhea: Thoughts flow rapidly and excessively.
mentism: “thoughts are pouring uncontrollably.”

i cant “SIMulate” a thought

A big clot blocks blood flow in the lungs.
The heart suddenly cannot pump effectively.
This can cause:

sudden drop in cardiac output,
hypotension,
syncope.

Massive PE is a very important cause of:
sudden cardiogenic/obstructive syncope.

c. What is genu valgum?
“Knock knees”
The knees angle inward.

The MOST classic joints

Especially:

MCP joints
(metacarpophalangeal)
= knuckles

and

PIP joints
(proximal interphalangeal)
= middle finger joints.

e. Repeated erysipelas damages:
lymphatic drainage.
This can cause:
chronic lymphedema
with severe swelling and thickened skin:
elephantiasis.

autoimmune disease
where the immune system slowly destroys:
small intrahepatic bile ducts.

This causes:
cholestasis

Tuberculosis infects the pleura and causes:
inflammation.

Inflammation causes:
protein leakage,
immune-cell accumulation.

So the fluid becomes:
an exudate.

exudate = inflammatory fluid
transudate = pressure/fluid imbalance

Acanthamoeba is a tiny organism found in:

water,
soil,
lakes,
tap water.

If it infects the:
cornea
(the clear front part of the eye),

it can cause:
severe keratitis

Empyema

means:

pus inside the pleural space.

Usually it happens after:

pneumonia,
lung infection,
surgery.

So instead of normal tiny pleural fluid,
the space fills with:

infected pus.

ultrasound sensitive for fluid, pus, etc

cerebral aqueduct (aqueduct of Sylvius)

connects:

the 3rd ventricle → 4th ventricle.

Very narrow structure.

Common place for blockage.

What happens in aqueduct stenosis?

If the aqueduct is blocked:

CSF cannot leave the:
lateral ventricles,
third ventricle.

So fluid accumulates:

BEFORE the blockage.

comedones = acne. it means clogged pore

low malignant potential

What does hyperkeratotic mean?
Too much:
keratin
(thick skin buildup).
That's why warts feel:
rough and hard.

The bartholin glands
sit near the vaginal opening.

They normally make:
lubrication fluid.

If the duct gets blocked:

fluid builds up,
bacteria infect it,
pus forms.

This becomes:
a Bartholin abscess.

What is marsupialization?

Doctors:
open the abscess,
drain the pus,
then stitch the edges open.

This creates a:
permanent drainage opening.

Ulcerative colitis -> p-ANCA
Crohn -> ASCA positive

recall Crohn is patchy transmural inflammation + granulomas in ANY part of the GI tract

Colitis is autoimmune attack again colon and rectum

Hemoptysis
means:
coughing up blood from the lungs/airways.

COPD is a chronic lung disease where airflow becomes:
obstructed.

Usually due to:

smoking,
emphysema,
chronic bronchitis.

Air gets:

TRAPPED IN THE LUNGS

making it hard to breathe out.

FEV1

Forced expiratory volume in 1 second:
How much air you can force out in the first second.

FVC

Forced vital capacity:
Total amount of air exhaled

In COPD:

FEV1 falls disproportionately.

So the:

FEV1/FVC ratio decreases.

Lung and liver both start with L, lymphatic!

Anthrax is an infection caused by:

Bacillus anthracis

a spore-forming bacterium.

Humans usually get it from:
infected animals,
animal products,
inhaling spores.

cutaneous, inhalational, intestinal

legionella bacteria found in WATER droplets, so think, URINARY TEST!

Legio n Ella love to pee

tightened muscles

it is NOT infectious or autoimmune

Anaphylaxis is:
a severe allergic emergency.

The immune system suddenly releases huge amounts of chemicals causing:

airway swelling,
low blood pressure,
wheezing,
shock.

Patients can die quickly from:

airway obstruction,
circulatory collapse.

Adrenaline:

opens airways (bronchodilation),
raises blood pressure,
reduces swelling,
improves circulation.

It reverses the dangerous physiology FAST.

Chromosome 17p contains:
TP53 tumor suppressor gene.

TP53 is extremely important for:
DNA damage response and apoptosis

think: sun disc
lesions are photosensitive

AML

Acute myeloid leukemia
Cancer of:

myeloid precursor cells.
ALL

Acute lymphoblastic leukemia
Cancer of:

lymphoid precursor cells.

Both cause:

lots of blasts,
bone marrow failure,
anemia,
infections,
bleeding.

d. Antibiotic discs are placed on bacteria growing on agar.
If bacteria are sensitive:
a clear inhibition zone forms.

e. Because digestion becomes impaired:

fat absorption decreases,
malnutrition develops,
patients lose weight.

Classic findings:

cachexia,
muscle wasting,
reduced subcutaneous fat.

a. skin patch: Think:

nickel,
fragrances,
latex,
hair dye,
preservatives.

c. Prick testing is for:

immediate (Type I) hypersensitivity.

Used in:

allergic rhinitis,
food allergy,
anaphylaxis.

grade 1 140-159
grade 2 160-179
grade 3: 180 above

CYP2D6 is a:
liver enzyme
that metabolizes many drugs.

An:
ultra-rapid metabolizer

has a VERY active version of this enzyme.

So drugs processed by CYP2D6 get broken down:
faster than normal.

c. Codeine itself is:

a prodrug.

CYP2D6 converts codeine into:
morphine
(the active analgesic).

These patients convert codeine:

TOO FAST

and produce excessive morphine.

This can cause:

somnolence,
constipation,
respiratory depression,
overdose toxicity.

VERY high-yield HFrEF mortality-benefit drugs

Think:

“Fantastic Four”

1️⃣ ARNI/ACEi/ARB
2️⃣ Beta-blocker
3️⃣ MRA (spironolactone/eplerenone)
4️⃣ SGLT2 inhibitor

b. an ARNI; blocks RAAS system, less fluid overload
e. blocks aldosterone, reduces sodium retention (fluid overload)

PKU is a genetic disease where the body cannot properly break down:
phenylalanine
(an amino acid found in protein).

Phenylalanine builds up in the blood and becomes:
toxic to the brain.

treatment must start early before brain damage begins

GGT is used to:
confirm the ALP elevation is hepatobiliary.

Because ALP can also rise from:

bone disease,
pregnancy,
growth.

So:

ALP ↑
GGT ↑

together strongly suggest:

liver/bile duct origin.

ST depression!

A pneumothorax happens when:
air leaks into the pleural space
(the space around the lung).

This causes the lung to:
partially collapse.

What does “primary spontaneous” mean?

It means:

happens suddenly,
without trauma,
in someone without known lung disease.

Classic patient:

tall thin young male smoker.

HAP horrible hospital bugs= pip/tazo

sounds like diarrhea but its urethral

If RBCs burst:
directly inside vessels,

free hemoglobin appears in:
plasma
(and often urine too).

This is VERY characteristic of intravascular hemolysis.

"TRIPtans stop the migraine TRIP"

normal hearing = 0-20
down below means severe hearing loss

first line = bone conduction 40-80 abmormal, means inner ear/cochlea damage exists, so there is sensorineural hearing loss
second line = air conduction worse than bone, big gap. air-bone gap = conductive hearing loss
conductive + sensorineural = mixed hearing loss

Upper esophagus:
blind ending pouch
Lower/distal esophagus:
connected to trachea

This accounts for:

~85% of cases.

mitral stenosis

S1
mitral valve closes

S2
aortic/pulmonic valves close

Then:
stenotic mitral valve suddenly opens
→ opening snap.

lateral decubitus brings the apex/mitral area closer to the chest wall

myelopathy: gait disturbance, weakness, hand clumsiness, etc

Bronchiectasis means the bronchi become:

permanently widened and damaged.

Mucus gets trapped inside them, leading to:

chronic infection,
inflammation,
lots of sputum.

It becomes a vicious cycle:

infection → damage → more infection.

Bronchiectasis = infected mucus tubes

b. What is a retinal tear?

The retina is the “camera film” lining the back of the eye.

A tear happens in the BACK of the eye.

Symptoms:

Flashes
Floaters
Curtain over vision

But:
🧯 the front of the eye is usually NOT inflamed.

So:
❌ no ciliary injection

Ciliary injection means:
redness around the cornea
caused by dilation of deeper blood vessels near the:
limbus
(edge of cornea).

It usually suggests:
deeper eye inflammation.

d. aka pink eye

a. calcium puts protective shield around the heart
c. insulin pushes potassium from blood into cells
d. sodium bicard reverses acidosis, so potassium moves back into cells

decreases orrifice area <1–1.5 cm² = SEVERE STENOSIS

SSRIs = “-oxetine” often
Fluoxetine
Paroxetine

ox your way through depression

(not always, but helpful)

A clot suddenly blocks the blood vessel:
🩸❌➡️🧠

The goal is:
🧯 OPEN THE BLOCKED VESSEL FAST

If you wait too long:

brain tissue is already dead
bleeding risk becomes dangerous

The famous board triad is:

🩸 Subdural/intracranial hemorrhage
👁️ Retinal hemorrhages
🧠 Encephalopathy/brain injury

In a seizure:
⚡⚡⚡ the brain suddenly fires chaotically.

In a generalized seizure:
🧠 BOTH sides of the brain are involved from the start.

That's why:

the whole body is affected
consciousness is lost

Why?

Giving antibiotics "just in case":
⚠️ promotes resistant bacteria
⚠️ increases C. difficile infection
⚠️ disrupts normal flora

This is a group of autoimmune diseases where:
🛡️ the immune system attacks muscles.

“Myositis” literally means:

myo = muscle

The disorder may progress from:
🏠 behavior problems mainly within family

to:
👥 broader antisocial/socialized conduct problems involving peer groups.

c. dyslipidemia contributes to:

atherosclerosis
cardiovascular disease generally

BUT:
❌ it is NOT part of the classic AF stroke-risk scoring systems.

f. the MEDICATIONS are not the risk factor.

In fact:
💊 antihypertensives help REDUCE stroke risk.

Here they mean:

subcutaneous emphysema

= air trapped under the skin.

Mediastinotomy
Creating an opening to access/drain the mediastinum.
Drainage
Allows trapped air to escape.
Think:
🎈➡️ releasing pressure from an overinflated balloon.

Subcutaneous emphysema means:
💨 air trapped under the skin.

P P P P alliteration = lichen PPPPPlanus

The thyroid gland becomes:
😡 inflamed and irritated.

When the thyroid gets damaged,
it “spills out” stored thyroid hormone into the blood.

So at first:
⬆️ thyroid hormone levels become high
→ temporary hyperthyroidism

BUT:
🧯 the gland is NOT overproducing hormone.
It’s leaking pre-made hormone.

Since the problem is:
🔥 inflammation

the treatment is:
✅ anti-inflammatory medications

c. melanoma most aggressive. basal cell most common

For TBE:
❌ there is NO effective post-exposure vaccination strategy.

Unlike rabies,
you do NOT vaccinate immediately after a tick bite for protection.

TBE vaccine is:
✅ preventive BEFORE exposure.

d. Myxedema =
🧯 severe hypothyroidism

Thyroid hormone normally helps generate:
🔥 body heat

Without enough thyroid hormone:
⬇️ metabolism
⬇️ heat production

Patients become:
cold
slow
hypothermic

trisomy 21 not strongly inherited

Bullous pemphigoid is:
🛡️ an autoimmune blistering skin disease

Usually affecting:
👴 older adults

The immune system attacks:
proteins connecting the epidermis to deeper skin

This causes:
💧 large tense blisters

Imagine the eye is controlled by several “strings.”

CN III controls most of those strings.

If CN III stops working:

the eye gets pulled the wrong way (divergent strabismus, eye deviates outward)
the eyelid droops
the pupil gets big (mydriasis)

abortion: < 22 weeks
preterm: <37 weeks
term: 37-42 weeks
postterm: >42 weeks

260–294 days
Divide by 7:
260 days ≈ 37 weeks
294 days ≈ 42 weeks

symptoms + instrumental confirmation

b. apraxia = inability to perform learned purposeful movements

A meningioma is usually:
🧠 a slow-growing benign brain tumor

It arises from:
the meninges
(the protective coverings around the brain)

Operative vaginal delivery often requires:
✂️ episiotomy
to enlarge the outlet for instruments.

a. Kidneys produce:
🧪 erythropoietin (EPO)
b. Calciphylaxis is:
🧯 vascular calcification with skin necrosis associated w hyperphosph and calcium
c. low WBC NOT a direct complication

Why hyperammonemia?

Urea cycle disorders cannot clear ammonia:
⬆️ ammonia becomes toxic to brain.

errors of metabolimsm: These are:
🧬 inherited enzyme defects

A metabolic pathway is missing or broken,
so toxic substances accumulate.

Why hypoglycemia?
Energy metabolism is impaired.

Very common in:

fatty acid oxidation defects
glycogen storage/metabolic disorders

Why encephalopathy?
The brain is extremely sensitive to:
ammonia
low glucose
acidosis

c, This is the:
🧯 EARLY phase of HIV infection

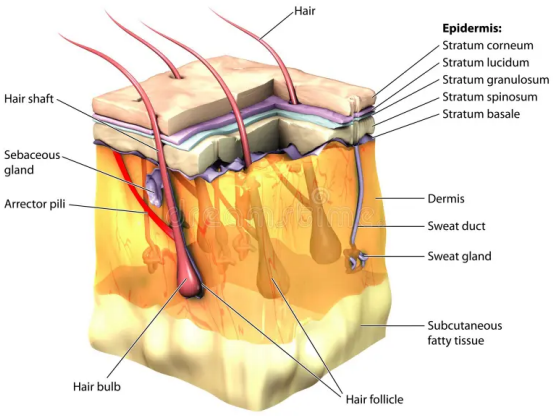
right after someone first becomes infected.

Usually occurs:
⏰ 2–4 weeks after exposure.

Viral load is VERY HIGH during this phase.

Seborrheic dermatitis is:
🕯️ a chronic inflammatory skin condition

It occurs in areas rich in:
🛢️ sebaceous (oil) glands.



Chronic Obstructive Pulmonary Disease

A chronic lung disease where airflow becomes:
🚫 obstructed and hard to exhale.

Usually caused by:
🚬 smoking

Main components:

chronic bronchitis
emphysema

Visceral leishmaniasis is a: 🦠 parasitic infection

caused by: Leishmania species

and spread by:
🪰 sandflies.

Also called:
kala-azar. Visceral bc it affects internal organs, esp spleen, liver, bone marrow

Why pancytopenia?

The parasite invades:
🦴 bone marrow

so blood cell production decreases.

Acute Respiratory Distress Syndrome

A severe inflammatory lung injury causing:
🫁 lungs to fill with fluid

leading to:
🫀 severe hypoxemia and respiratory failure.

c. Sepsis: Acute Respiratory Distress Syndrome

A severe inflammatory lung injury causing:
🫁 lungs to fill with fluid

leading to:
🫀 severe hypoxemia and respiratory failure.

An AVM is:
🧠 an abnormal tangle of blood vessels in the brain.

Arteries connect directly to veins:
❌ without normal capillaries between them.

these methods burn or plug up abnormal vessels

How is botulism acquired?

Main forms:

Foodborne botulism
Wound botulism
Infant botulism

Botulism is a serious disease caused by:
🦠 Clostridium botulinum

This bacterium produces:
☠️ botulinum toxin

one of the most powerful toxins known.

The toxin blocks nerves from talking to muscles.

So muscles become:
❌ weak and paralyzed.

People can eventually stop breathing because:
🫁 breathing muscles fail.

Primary biliary cholangitis (PBC)

It is:
🛡️ an autoimmune disease

where the immune system attacks:
🟢 small intrahepatic bile ducts.

Boerhaave syndrome =
🧯 spontaneous rupture of the esophagus

usually after:
🤮 forceful vomiting.

Normally the chest wall moves:
⬆️ outward during breathing.

In flail chest,
part of the chest becomes loose:
🪵 detached from the rest.

So during breathing it moves:
🔄 the WRONG direction.

This is called:

paradoxical movement

What is nephritic syndrome?

Think:
🔥 inflamed glomeruli

Classic features:

hematuria (“cola-colored urine”)
hypertension
edema
reduced kidney function
mild-moderate proteinuria

Why does APSGN fit this perfectly?

After streptococcal infection:
🧬 immune complexes deposit in glomeruli

This triggers:
🔥 inflammation

Inflammation damages capillaries and decreases filtration.

So:
🩸 blood leaks out
💧 fluid retention occurs
⬆️ BP develops

Classic nephritic picture.

Nephrotic syndrome is mainly:
🕳️ a permeability problem

NOT primarily inflammatory.

The glomerulus becomes:
🚿 very leaky to protein.

So the hallmark is:
🧯 MASSIVE protein loss

🚫 narrowing of the airway
below the vocal cords (subglottic area) or in the trachea.

Rigid bronchoscopy can:

directly visualize the stenosis
mechanically dilate the airway
ventilate simultaneously

The foramen magnum is:
🧠 the big opening at the base of the skull

where:
the brainstem becomes the spinal cord.

A tumor here can compress:
🧯 corticospinal motor fibers.

hysterectomy: removal of uterus
Because:

cancer surgery
wide dissection
close ureter manipulation

In IBD, the bowel lining becomes:
🔥 inflamed and irritated.

Mesalazine acts locally in the intestine to:
🧯 calm inflammation.

Thyroid hormone acts like:
🔥 the body's "speed controller."

If there isn't enough:
everything becomes:
🦕 slow.

Imagine air being pumped into a balloon beside the lung:
🎈⬆️⬆️⬆️

The pressure:

collapses the lung
pushes the heart and mediastinum away
blocks blood return to the heart

This becomes:
🚨 rapidly fatal if untreated.

Placenta previa means:
🩸 the placenta covers the cervical opening.

If labor occurs:
🚨 massive bleeding can happen.

c. A vaginal delivery is impossible in this position.

What is lichenification?

Repeated scratching/rubbing causes:
⬆️ thickened leathery skin

with exaggerated skin markings.

This takes:
⏰ time to develop.

So it is:
❌ NOT an acute lesion.

CPAP, weight loss

Main types of aphasia

1. Broca aphasia
poor speech production
comprehension relatively preserved

2. Wernicke aphasia
fluent but nonsensical speech
poor comprehension

These are signs of:
🚨 severe hemorrhagic pancreatitis.

Cullen sign

🟣 bruising around the umbilicus.

Grey Turner sign

🟣 bruising of the flanks.

They indicate:
🩸 retroperitoneal hemorrhage.

Degenerative joint disease =

osteoarthritis (OA)

It is mainly:
⚙️ “wear-and-tear” joint degeneration

NOT primarily an inflammatory autoimmune disease.

ckd = 5
AKI = 3

b. outer arms
outer legs

Atopic dermatitis =

eczema

A chronic:
🔥 itchy inflammatory skin disease.

A tracheostomy is:
🫁 a surgical opening into the trachea
with placement of a breathing tube through the neck.

Why around 1 week?

Classic teaching:
✅ if long ventilation is anticipated beyond ~7–10 days,
consider tracheostomy.

b. Ceftriaxone penetrates:
🧠 CSF well
e.Furosemide:
💧 removes excess fluid

and is a classic treatment for:
🫁 cardiogenic pulmonary edema.

In the lumbar spine:
A paramedian disc herniation usually compresses:
✅ the LOWER/traversing nerve root.

So L5 —> affect S1 clinically

DLE is:
🛡️ a chronic autoimmune skin disease

and a form of:

cutaneous lupus erythematosus.

It mainly affects:
☀️ sun-exposed skin

Lupus skin regions = photosensitive

Postmenopausal bleeding =
🚨 endometrial cancer until proven otherwise.

A woman should NOT bleed after menopause.

Biopsy is the definitive confirmation, but usually the FIRST thing you do when you suspect is US

The immune system mistakenly attacks the lining of joints.

The joints become:

swollen
painful
stiff

especially:
🌄 in the morning.

VERY HIGH-YIELD RA JOINT PATTERN

RA LOVES:
✅ MCP joints
✅ PIP joints
✅ wrists

RA usually SPARES:
❌ DIP joints
❌ sacroiliac joints

all of them include RESPONSE

Posterior uveitis affects:
👁️ the back of the eye

especially:

retina
choroid

d. would be anterior uveitis
a. would be herpetic keratitis

The key issue is:
🚨 MASS EFFECT

Meaning:

pressure on the brain
brain shift
neurological deterioration

What is an S3 gallop?

Normal heart sounds are:
❤️ “lub-dub”
(S1 and S2)

An S3 adds:
➕ a THIRD sound

making:
🎵 “lub-dub-ta”

Very classic heart failure clue.

The weak heart becomes:
💧 overloaded with blood/fluid.

When blood rushes into an overloaded ventricle,
it creates an:
🎵 extra heart sound.

That sound is:

S3.

After chickenpox,
the virus hides inside nerves:
🧠⚡

Years later it can “wake up”
and travel down a nerve,
causing:
🔥 painful blisters on the skin.

Shingles lesions follow:
⚡ a dermatome

because the virus travels along:
🧠 sensory nerves.

Smoking makes the liver become:
⚡ a faster “drug-destroying machine.”

So smokers often need:
💊 HIGHER medication doses

because the medicine disappears faster.

Onychomycosis =
🦶 fungal infection of the nail.

Usually affects:
toenails more than fingernails

What are dermatophytes? These
are fungi that love:
🧬 keratin, so they infect:

skin
hair
nails

Right lung = 3 lobes
Left lung = 2 lobes

A lobectomy removes:
✂️ one entire lobe.

A person gets an infection:
🦠 usually in the gut or genitals.

Later,
the immune system becomes confused and attacks:
🦵 the joints.

The bacteria are gone from the joint,
but inflammation continues.

d. Hemolysis
→ more bilirubin production
c. ✅ Biliary infection
→ bacterial enzymes increase bilirubin precipitation
e. Hypersecretion of bilirubin
→ direct mechanism

High blood sugar slowly damages:
⚡ tiny nerve wires.

The longest nerves get injured first,
so symptoms begin in:
🦶 toes and feet.

Normally there's a tiny space between:
🫁 lung
and
🧱 chest wall.

If fluid or air keeps collecting there,
doctors can intentionally create:
🔥 irritation/scarring

so the two layers stick together permanently.

That is:

pleurodesis.

Talc causes:
🔥 strong sterile inflammation

leading to:
🩹 fibrosis and adhesion.

It has:
✅ very high success rates.

women 8, men 9

Normally,
if a blood vessel breaks,
the body tries to:
🩹 form a clot and stop bleeding.

Anticoagulants make clotting:
⬇️ weaker/slower.

So if a brain vessel ruptures:
🩸 bleeding becomes easier and worse.

A lung infection spreads into the space around the lung:
🫁➡️🦠➡️ pus

The pleural space fills with:
🤢 infected fluid/pus.

What does “parapneumonic” mean?

“Para-” = next to
“pneumonic” = pneumonia

So:
parapneumonic empyema

means:
🫁 empyema caused by pneumonia.

180/70
180 = systolic
70 = diastolic

a. Fluid around the heart CAN impair function,

b. Myocarditis =
🔥 inflammation of the heart muscle,
often viral.

The inflamed heart becomes:
💔 weak and unable to pump effectively.
d. yea

psoriasis: The skin cells grow:
⚡ way too fast.

The immune system keeps telling the skin:
“grow, grow, grow!”

So thick scaly plaques form.

Methotrexate is:
💊 an immunosuppressive medication
that decreases:
🔥 excessive immune activity.

“me treat rex skin”

lobectomies are for lobes of the lung not liver lol

What is the subarachnoid space?

The brain is covered by layers:

Dura
Arachnoid
Pia

The:
subarachnoid space
lies between:

arachnoid
pia

and normally contains:
💧 CSF.

The artery wall becomes weak and bulges outward:
🎈
If it bursts:
💥🩸
blood spills around the brain.

RIPE therapy 2 months, then 4 months RI only!
4 + 2 = 6

Hepatic encephalopathy =
🧠 brain dysfunction caused by liver failure.

The damaged liver cannot properly remove:
☠️ toxins

especially:

ammonia.

liver becomes shrunken and fibrotic by this stage

🍄 infection caused by Candida species,
most commonly:
🦠 Candida albicans.

Candida normally lives on:

skin
mouth
GI tract
genital tract

but can overgrow under certain conditions.

Candida likes:
🌡️ warm
💧 moist
🍡 sugary
⚠️ weak-immune environments.

aka bulls eye

“Bacteria EAT the sugar.”

So:
🦠 bacterial meningitis
➡️ LOW CSF glucose

Bacterial meningitis:
🧪
Neutrophils
LOW glucose

Viral meningitis:
🧪
Lymphocytes
NORMAL glucose
CLEAR fluid

Primary: Painless chancre (ulcus durum)
Secondary: Rash + condylomata lata
Tertiary: Gumma

b. Roseola syphilitica = 🌸 diffuse pink macular rash
d. 🟤 broad moist wart-like lesions

eGFR = G3a. G1 = 90, G5 = <15
Albumin: A3 (very high)

a. These help identify:

Type 1 diabetes

because T1DM is:
🛡️ autoimmune destruction of beta cells.

Common antibodies:

GAD antibodies
islet cell antibodies
insulin autoantibodies

Very high-yield endocrinology fact.

c. T1DM = low insulin prdocution
high insulin T2DM
d. C-peptide released when endogenous insulin made;
T1Dm low Cpep
T2DM normal/high

A father's sperm keeps being produced his whole life.

Over time,
copying mistakes can happen in DNA:
📝🧬 errors

These new mutations can then be passed to the fetus. For an autosomal dom, you only need ONE mutated copy

Too much PTH keeps pulling:
🦴 calcium OUT of bones
and INTO the blood.

So:
⬆️ blood calcium
⬇️ bone strength

and excess calcium can damage kidneys.

Pneumonia causes:
🔥 inflammation

so fluid leaks into the space around the lung:
🫁➡️💧

Because it is inflammatory/infectious fluid,
it contains:
🧪 lots of proteins and neutrophils.

parapneumonic effusions are EXUDATES.

“Amoeba ATTACKS the colon.”

upper tracheal rings

Hemolytic anemia means:
🩸 red blood cells are destroyed too quickly.

The body responds by:
🏭 increasing RBC production in the bone marrow.

haptoglobin DECREASES in hemolysis.

This is one of the classic hemolysis lab findings.

Why?

Haptoglobin binds:
🩸 free hemoglobin released from destroyed RBCs.

During hemolysis:
⬇️ haptoglobin gets “used up.”

So:
❌ it decreases
NOT increases.

Sarcoidosis is often:
⏳ chronic and relapsing.

Stopping steroids too early may lead to:
↩️ recurrence.

So treatment commonly lasts:
✅ around 1 year or longer.

Why 8–12 weeks?

Red blood cells live for about:
⏳ 120 days (~3 months).

So HbA1c reflects:
📈 average glucose over the last:
✅ 8–12 weeks.

Too much fluid builds up inside the inner ear:
💧👂

The inner ear controls:

balance
hearing

So patients get:
🌪️ spinning attacks
AND
🔌 hearing problems.

Bacteria enter the dialysis fluid:
🦠➡️ abdomen

causing:
🔥 inflammation and pus formation.

So the dialysis fluid becomes:
☁️ cloudy

and fills with:
🧪 neutrophils.

type IV delayed hypersensitivity:
A substance touches the skin:
🧴🖐️

The immune system “remembers” it and later causes:
🔥 itchy eczema-like rash.

Skin prick test checks for:

⚡ Type I immediate hypersensitivity

Examples:

pollen
peanuts
cat allergy
anaphylaxis

These are:
🧪 IgE-mediated allergies.

Contact allergy = Type IV hypersensitivity

Examples:

nickel allergy
poison ivy
cosmetic allergy

This reaction is:
🛡️ T-cell mediated
and delayed.

Symptoms appear:
⏳ 24–72 hours later.

In RA,
the immune system mistakenly attacks certain proteins in the body.

Some proteins become chemically changed:
🧬➡️ “citrullinated.”

The immune system then creates antibodies against them:
⚔️ anti-CCP antibodies.

The immune system attacks:
🩸 blood vessels.

Doctors therefore use:
🛡️ immunosuppressive medications
to calm the immune attack.

option e is used for RA, IBD

The 4 Estrera criteria
🦠 Severe oropharyngeal infection
📷 Radiologic evidence of mediastinitis
🔬 Operative or postmortem confirmation of necrotizing mediastinal infection
🔗 Clear relationship between the neck infection and mediastinitis

Selenium is needed for:
🧪 deiodinase enzymes

which convert:
T4 ➡️ T3

Thiopental is:
🩹 an ultra-short-acting barbiturate anesthetic.

Historically used for:
induction of anesthesia
neuroanesthesia

🧠 decreases:

cerebral metabolic rate
cerebral blood flow
intracranial pressure (ICP)

This is its major desirable effect.

Hemoptysis =
🩸 coughing up blood from the respiratory tract.

The biggest danger is:
🫁 drowning in blood,
not just losing blood.

So first aid focuses on:
✅ protecting the airway
✅ preventing blood from flooding both lungs.

Nitroglycerin causes:
⬇️ vasodilation
⬇️ blood pressure

This is BAD in severe hemoptysis b/c worsens instability, shock, etc

a. Both drugs can contribute to:
💧 sodium and water retention
c. YES !! NSAIDS reduce efficacy of ANTIHYPERTENSIVES

Defibrillation is used for:
⚡ shockable cardiac arrest rhythms.

In children and infants,
the shockable rhythms are:

✅ VF
✅ pulseless VT

Blood fills the space around the lung:
🫁➡️🩸

A chest tube is inserted to:
🚰 drain the blood.

If TOO much blood keeps coming out,
it means:
⚠️ active major bleeding inside the chest.

Then surgery is needed:
🔪 thoracotomy.

The body mistakenly thinks something harmless
(like peanuts or bee venom) is dangerous.

IgE antibodies sit on:
💥 mast cells.

When the allergen arrives,
it links (“cross-links”) the IgE molecules:
🔗🔗

This activates mast cells,
which suddenly release:

histamine
leukotrienes
inflammatory mediators

causing:
🧯 anaphylaxis.

The patient has:
🩸 antiphospholipid syndrome (APS)
with:
🧯 recurrent DVTs.

That means:
⚠️ VERY high thrombotic risk.

So anticoagulation usually cannot simply be stopped completely.

The solution:
“bridging”

Warfarin is stopped before surgery,
and temporary:
💉 LMWH (heparin bridging)

is used because:

shorter acting
easier perioperative control

Without a working cerebellum, movements become:

shaky
clumsy
wobbly
poorly coordinated

Hypotonia = decreased muscle tone
The cerebellum normally helps maintain proper muscle tone.

When damaged:
muscles become floppy
resistance to passive movement decreases

Sensitivity asks:
“If someone HAS the disease, will the test catch them?”

The investigator wants to include ONLY people who are:

✅ HIV negative
❌ NOT already infected with HIV
The BIG danger 🧯 is:
👉 accidentally missing someone who actually HAS HIV

Imagine the immune system 🛡️ gets confused and attacks:

the optic nerves 👁️
and the spinal cord 🦴

This causes:
vision problems/blindness 👁️❌
weakness/paralysis 🦵
numbness
bladder problems 🚽

This disease is called:
🌟 Neuromyelitis Optica (NMO)
or
🌟 Devic disease

Melanoma is a malignant tumor of melanocytes and is the most dangerous type of skin cancer due to its high metastatic potential.

It commonly metastasizes to:

lymph nodes
lungs 🫁
liver
brain 🧠
bone 🦴

Why bougienage?

It:

mechanically widens the lumen
improves swallowing
is minimally invasive
is standard first-line therapy for benign strictures

see earlier question on syphillis

For MAC pulmonary disease, standard therapy includes:

✅Macrolide-based triple therapy:
clarithromycin (or azithromycin)
rifampicin
ethambutol

REC that non-tb myco!

Compare AIR conduction vs BONE conduction

Conductive: air-bone gap bc sound transmission through the outer/middle ear impaired
Sensorineural: BOTH air and bone reduced, they decrease TOGETHER

Both <20 db here. 0-20 db is the threshold for normal hearing

HAP —> Pip/tazo !!!

Expiratory dyspnoea is classically associated with:

lower airway obstruction (SMALL AIRWAYS)

especially involving:

bronchi
bronchioles

Mechanism:

increased airway resistance during expiration
airway collapse/trapping
prolonged expiration

CO=HR×SV

HAE is:

❌ NOT histamine-mediated
✅ Bradykinin-mediated

Therefore:

antihistamines ❌
steroids ❌
epinephrine ❌

are often ineffective.

Hereditary angioedema (HAE) causes:

😬 sudden dangerous swelling

The swelling can happen in:

face 😮
lips 👄
throat 🚨
intestines 🤢

Systemic sclerosis (scleroderma) is a:

autoimmune connective tissue disease
characterized by:

fibrosis
vascular dysfunction
immune activation

affecting:
skin
lungs
GI tract
kidneys
heart

c. tightening/thickening of finger skin

Exudative effusions happen when the pleura gets:
inflamed 😡
infected 🦠
invaded by cancer ⚫

The MOST common causes are:

🦠 Pneumonia
⚫ Cancer (neoplasia)
🫁 Tuberculosis

Transudate 💦pressure problem

Exudate 😡 inflammation/infection/cancer

This pressure:

squishes the lung 🫁
pushes the heart ❤️
compresses big blood vessels

Then:

🚑 blood cannot return to the heart

The patient can die VERY quickly.

A bad infection spreads through the body.

The immune system goes CRAZY 🚨 and causes:

blood vessels to open too much
blood pressure to crash 📉
organs to get poor blood flow

VERY LOW BLOOD PRESSURE
Doctors often must give:

💉 vasopressors
These medicines squeeze blood vessels tighter so pressure goes back up.

Elevated lactate indicates:
tissue hypoperfusion
metabolic dysfunction

flexor tendons → bend fingers ✊
extensor tendons → straighten fingers 🖐️

c. CORE HF biomarker

BNP/NT-proBNP:

increase with ventricular stretch
help diagnose/rule out HF

again, i wouldnt NOMINATE that you rupture this one

SAFE antihypertensives in pregnancy:
❤️ Labetalol
❤️ Methyldopa
❤️ Nifedipine

“Mom, Never Leave”

1. A prolactinoma 😬
A tumor that directly makes prolactin.

2. Stalk compression 🚧
A big tumor squishes the pituitary stalk, so dopamine cannot reach the pituitary.

No dopamine brake ❌🛑 →
prolactin rises.

b. portosystemic collateral veins

Most importantly:

esophageal varices
gastric varices

These thin-walled dilated veins can rupture and cause:

life-threatening upper GI hemorrhage

c. Ascites =

accumulation of free fluid in the peritoneal cavity

Most commonly due to:

portal hypertension from cirrhosis

Inflammatory spondyloarthropathies are diseases where:

🦴 joints and places where tendons attach become inflamed

Examples:

ankylosing spondylitis
psoriatic arthritis
reactive arthritis

These diseases LOVE affecting:

spine
sacroiliac joints
eyes 👁️
tendons

Molluscum contagiosum is a:
🦠viral skin infection

It causes tiny bumps that look like:
🍩little donuts

because they have:
👉a small dent in the middle

Doctors call that:
✨ umbilication

mean gradient = pressure at valve too high

What is bilirubin? 🟡

Old red blood cells eventually break apart 🩸💥

When they do, they make:
👉bilirubin

The liver normally cleans bilirubin up.

In hemolytic anemia 😬

Red blood cells are being destroyed TOO FAST 💥💥💥

So the body makes:
🧯 LOTS of bilirubin

But the liver cannot keep up completely.

The bilirubin here is mostly:

INDIRECT (unconjugated)

because:

total bilirubin is very high 📈
direct bilirubin is normal
Another HUGE clue:
❌ NO bilirubin in urine

Why?

Indirect bilirubin:

🚫 cannot enter urine

Glucagon
Tells the liver:
“Release stored sugar NOW!”

AUC reflects:

discriminatory ability

Meaning:
how well the test distinguishes diseased vs nondiseased patients.

Greater area the better!

Stage III requires:
lymphoma on BOTH sides of the diaphragm

Meaning:
chest + abdomen/pelvis involvement

BUT here:
❌ abdomen ultrasound is normal

Anything narrowing airways can whistle.

lower abdomen and groin

Impetigo is a:

🦠 skin infection

usually caused by:

Staph aureus
or
Strep pyogenes

It often happens in kids 👦👧
Like:

🍯 dried honey stuck on the skin

Usually around:

nose 👃
mouth 👄

rats lept across the spiral

MAIN treatments are:

intranasal corticosteroids 👃
saline irrigation 💧
treating allergies
sometimes surgery

In membranous nephropathy (MN):

the immune system puts antibody “junk” onto the filter 🟫
the filter wall becomes thick
protein leaks into urine

Result:

nephrotic syndrome
lots of proteinuria
edema
hypoalbuminemia
hyperlipidemia

Primary MN —> autoimmune
Secondary —> due to another disease

what is acute laryngotracheobronchitis?

This is the fancy medical name for croup.

Croup is:

inflammation of the larynx + trachea
usually in small children 👶
causes a barking cough 🐶

Croup usually causes:
low-grade fever
or
mild/moderate fever

The lung tissue gets progressively scarred:

alveoli become thick/stiff
lungs lose elasticity
gas exchange worsens

Patients develop:
😮‍💨 progressive shortness of breath
😮‍💨 dry cough
📉 reduced oxygen levels

Nintendo for IPF

Psoriatic arthritis (PsA) is:

an inflammatory arthritis associated with psoriasis.

Psoriasis

is the skin disease with:

red plaques
silvery scales

Heparin is a blood thinner used to treat things like:

pulmonary embolism
DVT
heart attacks

But sometimes the immune system gets confused 😵

It creates antibodies that:

activate platelets
make dangerous clots
ALSO lower platelet count

So paradoxically:

a blood thinner causes clotting

Unstable angina is part of:

Acute Coronary Syndrome (ACS)

It means:

coronary plaque becomes unstable/ruptures
blood flow suddenly worsens
ischemia occurs

BUT:
❌ heart muscle has NOT died yet

So:

troponins/cardiac enzymes stay normal
ECG may be normal or nonspecific

stable angina = worse with exercise, fine at rest
unstable angina = PAIN AT REST

Treponema pallidum

causes:

👉Syphilis

syphillis lips

Inside the eye there is fluid constantly being produced.

Normally the fluid drains out through:

the anterior chamber angle

In acute angle-closure glaucoma:
❌ the drainage angle suddenly closes

So:
➡️ pressure inside the eye rises VERY FAST.

Why is case-control best for rare diseases?

Because:
you START with people who already HAVE the disease.
That makes it much easier to study something rare.

Gout is a type of:
inflammatory arthritis

caused by:
uric acid crystal deposition in joints 💎

foods contain purines —> uric acid
starvation causes —> ketosis, inc uric acid retention

Normally, stress tests make the heart work harder by:
🏃, exercise

But some patients:

cannot exercise
OR
have ECG abnormalities making exercise ECG unreliable

So doctors use:

pharmacologic stress testing

“Full-house” means:

Almost EVERYTHING lights up positive ✨

Including:
✅ IgG
✅ IgA
✅ IgM
✅ C3
✅ C1q

The trigeminal nerve supplies:

corneal sensation 👁️

especially through:
ophthalmic division (V1)

b. Damage to trigeminal nerve → ❌ reduced corneal sensation

d. Lagophthalmos =
inability to close eyelids completely.

cute myocardial infarction (AMI) suddenly destroys heart muscle 🚨

And when enough heart muscle dies:
❌ the heart cannot pump effectively anymore.

That leads to:

cardiogenic shock.

highly contagious viral eye infection 👁️🦠
Usually caused by:
adenovirus

It affects:
conjunctiva
sometimes cornea (“kerato-”)

a. “Ropy discharge” → allergy
b. bacterial conjunctivitis
d. again bacterial

e. small lymphoid bumps on the conjunctiva

Aldosterone tells the kidneys:
✅ keep sodium and water
✅ get rid of potassium

So too much aldosterone causes:

hypertension
hypokalemia

these should all suppress aldosterone; if ald remains high,
you confirm diagnosis of primary disease

In bronchiectasis:
💥 the pipes become stretched and damaged
💥 mucus gets trapped
💥 bacteria grow easily

Sulfonylureas are diabetes medications that:
stimulate the pancreas to release insulin
if they do too much, hypoglycemia. that drop in blood sugar activates cortisol, catecholamines.
c-peptide is part of pro-insulin b4 it gets cleaved

Nephrotic syndrome = “protein leaking disease”

LMWH too large to cross the placenta
penicillin is ok

cerebral cortex

is the outer part of the brain 🧠

It handles higher functions like:

language
thinking
memory
voluntary movement
sensation interpretation

So:

cortical dysfunction = problem in higher brain functions.

Aphasia =
language disorder caused by brain damage

a. glomeruli damaged by hypertension, albumin leaks into urine
b. hypertension reduces kidney blood supply
d. severe long term hypertension can eventually destroy kidneys
e. chronic hypertension damage to glomeruli can cause scarring = sclerosis

those shocks have LOW cardiac output
high CO is unique to septic shock only

The pituitary sits right below:

the optic chiasm 👁️

The optic chiasm contains crossing fibers from:
➡️ temporal visual fields.

A growing tumor compresses the chiasm:
→ loss of peripheral vision on BOTH sides.

The LAA is the major clot-forming site in AF.

b. Surgeons create scar lines in the atria:
➡️ abnormal electrical signals are blocked.

c. Myxedema =

severe hypothyroidism 🚨

Hypothyroidism commonly causes:

dry coarse hair
hair thinning
sparse hair
loss of lateral eyebrows

Acromegaly is caused by:

too much growth hormone (GH) in adults 🚨

Usually due to:

pituitary adenoma

b. associated with CHRONIC sarcoidosis, not acute

The immune system becomes overactive and forms tiny inflammatory “clumps” called granulomas 🟠

In Löfgren syndrome,
this happens suddenly and causes:

fever
swollen lymph nodes
painful joints
skin nodules

VATS =
Video-Assisted Thoracoscopic Surgery

It is a minimally invasive chest surgery technique 🫁

Lobectomy =

removal of a lung lobe.

Most commonly done for:

lung cancer
severe bronchiectasis
localized lung disease

Celiac disease is:

an autoimmune reaction to gluten 🌾

Gluten is found in:

wheat
barley
rye
What happens?

When a person with celiac disease eats gluten:
⚔️ the immune system attacks the small intestine.

This damages:

intestinal villi 🧯

d. VILLOUS ATROPHY ON BIOPSY

These segments mainly supply:
✅ upper limbs

while pathways going to:
✅ lower limbs
pass THROUGH these segments.

AT THE LEVEL of the lesion:
➡️ LMN signs (flaccid)

BELOW the lesion:

➡️ UMN signs (spastic = stiff)

This is:
narrowing of the trachea after intubation 🚨

Usually caused by:
prolonged endotracheal tube pressure
cuff ischemia
scarring/fibrosis

leakage of cerebrospinal fluid (CSF) after puncturing the dura

colon cancer located in the cecum 🚨

The cecum is:

the FIRST part of the large intestine
located in the right lower abdomen.

The cecum/right colon has:
✅ large diameter
✅ liquid stool

So tumors rarely cause:

early large bowel obstruction.

T score compares pt bones to healthy young adult,
Z score compares to age matched peers

BMD = Bone Mineral Density 🦴

Usually measured by:

DEXA scan (DXA)

It helps diagnose:

osteopenia
osteoporosis

What is pemphigus vulgaris?

Autoimmune disease against:

desmogleins

which normally hold skin cells together.

Nikolsky sign =

the superficial skin peels/sloughs off when rubbed lightly 🧯

Doctors gently apply pressure or rub the skin:
➡️ the epidermis separates.

The bacteria releases a toxin that:
❌ blocks the body's "relax muscles" signals.

So muscles become:
🪨 stiff
🪨 tight
🪨 painfully contracted

What is a convexity meningioma?

A meningioma arising from:

the dura on the outer brain surface.
Why is prognosis good?

Because they are often:
✅ benign
✅ slow-growing
✅ surgically accessible

Psycho-organic syndrome is:
a set of mental/personality changes caused by organic brain damage 🧠

Crystalloids are given because:
they quickly increase circulating fluid volume 💧

Examples:

normal saline
lactated Ringer's

Achondroplasia is:
the most common form of dwarfism 🧯

Inheritance:

autosomal dominant
VERY HIGH-YIELD:

Most patients are:
heterozygous (Aa)
because:
homozygous achondroplasia (AA) is usually lethal 🧯

25% lethal homozygous
50% achondroplasia
25% normal height

1️⃣ bleeding happens
2️⃣ cleanup workers arrive
3️⃣ soft repair material forms
4️⃣ bone hardens
5️⃣ bone reshapes itself

🧠 First: why is induction dangerous in shock?

Patients in shock already have:
❌ low blood pressure
❌ poor organ perfusion

Many anesthetic induction drugs:
➡️ LOWER blood pressure even more 🧯

That can be dangerous.

Ketamine is special because:
it stimulates the sympathetic nervous system 🧯

This causes:
✅ increased heart rate
✅ increased blood pressure
✅ increased cardiac output

Tinea corporis = fungal infection of body skin
Tinea facialis = fungal infection of face

“ringworm” appearance

herald patch
is a single large scaly pink plaque that appears FIRST 🚨

What a pity, Herald!

Then days later:
➡️ many smaller lesions spread across the body.

This is CLASSIC for:
pityriasis rosea.

Crohn disease causes:

transmural inflammation 🚨

(full-thickness bowel wall inflammation)

That leads to:
✅ fistulas
✅ abscesses
✅ strictures/stenosis

c. NO, this is CROHNS

Turner syndrome occurs when a female has:
complete or partial absence of one X chromosome

turn one X poof

d. vasodilators have been used because:
vascular compromise may contribute to cochlear injury.
e. anti-inflam medicine near the inner ear

aka trisomy 21

Bronchiectasis + nodules

→ think NTM.

NTM usually causes:

chronic airway/parenchymal disease,
not pleural involvement.

Pleural effusions are much more associated with:

bacterial pneumonia
TB sometimes
malignancy
heart failure

This bacteria likes warm water systems 🚿
People breathe in contaminated water droplets,
and the bacteria infect the lungs.

Restrictive
disease =
LOW lung
volumes

Doctors usually do NOT remove the old kidneys.

Instead,
they place the new kidney lower down in the belly near the groin.

Like adding a new filter instead of replacing the old ones.

MPS are:

lysosomal storage diseases

The body cannot properly break down:
glycosaminoglycans (GAGs)

(previously called mucopolysaccharides).

Result:
These substances accumulate in tissues:
➡️ progressive organ and skeletal damage.

eur = ear

The posterior mediastinum is near:

the spine and nerves 🚨

So the MOST common masses there are:

neurogenic tumors.

Femoral shaft fractures can hide
LARGE blood loss 🚨

Sometimes:

1–1.5 liters of blood

can collect internally.

Imatinib is like a key 🔑
made specifically to block the abnormal BCR-ABL protein.

If the patient does NOT have BCR-ABL:
❌ the drug has no target.

The pontocerebellar (cerebellopontine) angle is a small space in the brain near:

the pons (part of brainstem)
the cerebellum (balance center)

Very important nerves pass through here, especially:

CN VII = facial nerve
CN VIII = vestibulocochlear nerve (hearing + balance)

a. It's a pancreatic tumor that makes too much glucagon.
c. Growth hormone acts against insulin.
It causes:
insulin resistance
increased glucose production
e. pancreas damaged

This is when there is:

a hole in the chest wall
AND
air moves between the outside world and the pleural space.

Classic name:
"Sucking chest wound"

hermetise = seal/close the chest wall defect.

d. Ultrasound breaks the cloudy lens into tiny pieces:

Then the pieces are suctioned out and replaced with an artificial lens.

It is a:

small-vessel vasculitis
autoimmune disease
causes inflammation and destruction of blood vessels
The BIG board concept

GPA classically attacks:

lungs + upper airway + kidneys

Think:

“ELK”
ENT
Lung
Kidney

Anaplastic astrocytoma

This is a:
malignant brain tumor
arising from astrocytes (support cells in the brain)
WHO Grade III

It is more aggressive than a low-grade astrocytoma but less aggressive than:
Glioblastoma
On MRI, doctors look for signs that the tumor is active and aggressive.

Normally the immune system attacks germs. 🦠
But in autoimmune disease, the immune system gets confused and attacks the body itself.
ANA means:
the immune system is attacking parts inside our own cells.
So ANA is commonly positive in autoimmune diseases.

Imagine CYP3A4 is a worker in a drug factory.

Its job:
👨‍⚕️ “Break down medicines.”

Some substances:

make the worker go FASTER → inducers
make the worker go SLOWER → inhibitors

Before surgery:

the tumor constantly releases catecholamines
blood vessels stay tightly constricted

During surgery:
💥 tumor gets removed

Suddenly:

catecholamines disappear
vessels relax dramatically

→ blood pressure can CRASH.

a. Pressure from the trach tube/cuff damages tracheal cartilage over time. The trachea becomes floppy.

The cold chain is:

a. A term used to describe the fact that children who become ill during the cold season are caught in an unbroken chain of illnesses, i.e., they re-infect with a new viral infection after they have had time to recover
b. A constant temperature regime of 2-8°C, necessary for the transport of vaccines
c. A constant temperature regime of -80°C, which is essential for the transport of vaccines

Treatment of herpetic eczema:

a. Systemic antibacterial therapy should be initiated immediately
b. Symptomatic
c. Systemic antiviral therapy
d. Continue treatment of a pre--existing exacerbation of atopic dermatitis

Which of the following statements about scarlet fever are true:

a. Predominantly occurs in children under 3 years of age
b. A source of infection is asymptomatic carriers of Streptococcus pneumoniae and patients with pneumococcal disease
c. Usually spreads by close contact, via respiratory droplets
d. Seasonal (late winter early spring)
e. Causative agent is group B alpha haemolytic streptococcus

Hib epiglottitis has 4 major "D" clinical signs, what are they?

a. Dysphonia
b. Dysphagia
c. Drooling
d. Dysosmia
e. Dyspnoea

Antibacterial drugs used to treat Campylobacteriosis: CA myocin

a. Trimethoprim
b. Clarithromycin
c. Vancomycin
d. Azithromycin
e. Penicillin

Which of these could have been a source of infection for a child who had chickenpox 4 days ago:

a. A cousin who contracted chickenpox 2 months ago
b. A mother who had contact with a child with chickenpox five days earlier
c. Grandmother with day five of shingles
d. A father on the fourth day with oral herpes zoster
e. A child with chickenpox attending the same kindergarten group 20 days ago
a. Can be contracted in public places
b. Infection occurs in children's institutions
c. Infection is more common in young children under 5 years of age
d. Infected individuals can shed the virus for up to 2 months
e. Virus is insensitive to chlorine-based disinfectants

Which of the following is the most characteristic set of symptoms and signs of infectious mononucleosis? [SC]

a. Fever, pharyngotonsilits, lymphadenopathy, rash
b. Fever, vomiting, abdominal pain, hepatosplenomegaly
c. Fever, vomiting, diarrhea, hepatosplenomegaly
d. Fever, pharyngotonsilits, lymphadenopathy, nasal congestion, hepatosplenomegaly

How is measles transmitted? [SC]

a. Parenterally
b. Transplacental route
c. Aerosol route
d. All of the written routes
e. Fecal oral route

Which infectious disease is characterised by a rash on the hairy part of the head?

a. Scarlet fever

b. Chickenpox
c. Parvovirus infection
d. Rubella
e. Pseudotuberculosis

Which of the following childhood infections is not controlled by vaccines?
a. Chicken pox
b. Rotavirus infection
c. Scarlet fever
d. Tetanus
e. Whooping cough

Which pertussis vaccine(s) are used to vaccinate Lithuanian children of different ages in Lithuania?
a. DTaP
b. DTwP
c. Td
d. Tdap

Which of the following adverse reactions is a contraindication to vaccination with the same vaccine?
a. Fever over 40°C
b. Anaphylactic reaction
c. Prolonged restlessness after vaccination
d. Local swelling of more than 5 cm in diameter

Which of the following diseases are characterized by chronic heart failure?
a. Dilated cardiomyopathy.
b. Hypoplastic left heart syndrome
c. Subaortic ventricular septal defect
d. Pericardial tamponade
e. Frequent acute viral infections

What is your treatment strategy for the isolated 2 mm muscular ventricular septal defect?
a. Infusion of prostaglandins
b. Infusion of ibuprofen
c. You will organize a surgery
d. You will organize a Rashkind's septostomy
e. Observational tactics

Which of the following diagnostic tests can be used to assess the severity of heart failure in children?
a. Echocardiogram
b. Blood test
c. Chest X-Ray
d. Electrocardiogram

Which Patients have a higher risk of infective endocarditis?
a. After ross surgery
b. With mild systolic murmur
c. With a bicuspid aortic valve
d. After patent ductus arteriosus ligation
e. With a tricuspid aortic valve

Which of the following is a common symptom of transposition of the great arteries?
a. Syncope
b. Weakness or cramping in the legs
c. Clubbing of the fingers
d. Cyanosis

What are the signs of postductal coarctation of the aorta?
a. Arterial hypertension
b. Sudden onset of symptoms soon after birth
c. Lower BP in the legs, higher in the arms

d. Oliguria
e. Auscultation of a constant murmur between the scapula

What is your treatment strategy for the postductal coarctation of the aorta?

a. Infusion of prostaglandins
b. You will organize a surgery
c. You will organize a Rashkind's septostomy
d. Infusion of ibuprofen
e. Antihypertensive treatment

Which of the following is a common symptom of hypoplastic left heart syndrome?

a. Syncope
b. Rapid breathing
c. Cyanosis
d. Clubbing of the fingers

The strategies for non-drug therapy of heart failure:

a. Rest
b. Small portions of food
c. Diet without fibrous food
d. Ensuring 30 minutes of moderate-intensity physical activity every day
e. Limiting the amount of dietary salt

What characteristic signs can be auscultated during acute myocarditis?

a. Tachycardia
b. Muffled heart tones
c. Systolic murmur
d. Tone II emphasis at the valve of the pulmonary trunk
e. Accented second tone at the valve of the pulmonary trunk

Which of the following diseases can be complicated by an acute heart failure?

a. Coarctation of the aorta
b. Bicuspid aortic valve
c. Multiple muscular ventricular septal defect
d. Purulent tonsillitis
e. Myopericarditis

What are the characteristic signs of effusive pericarditis?

a. Syncope
b. Shortness of breath
c. Pericardial rub
d. Chest pain
e. Cardiac temponade

The heart sits inside a thin protective bag called the:
pericardium

In pericarditis:
🔥 the bag becomes inflamed

Then fluid may build up around the heart:
💧💔
Too much fluid can squeeze the heart.

Which of the following lifestyle modifications is recommended for children with heart failure?

a. Following a high sodium diet
b. Getting at least 8 hours of sleep per night
c. Maintaining a healthy weight
d. Avoiding physical activity

What clinical signs are characteristic for hypertrophic cardiomyopathy?

a. Numbness of the limbs
b. Diastolic heart murmur
c. Liver enlargement
d. Severe chest pain during physical exercise
e. Syncope

Electrocardiographic signs of Wolff-Parkinson-White phenomenon?

a. Prolonged QTc interval
b. Prolonged QRS interval
c. Delta wave

What is a delta wave?
A slurred upstroke at the beginning of the QRS.

Caused by:
early ventricular activation.

CLASSIC HALLMARK!!

WPW is a condition where the heart has:

an EXTRA electrical pathway

Normally electricity travels:
SA node → AV node → ventricles

But in WPW:
⚡ electricity "cheats" through an accessory pathway.

Usually called:
Bundle of Kent. QRS widened bc ventricles activate abnormally/early through the accessory pathway

d. Prolonged PR interval
e. Shortened PR interval accessory pathway skips conduction delay

Which of the following congenital heart defects is characterized by a combination of four heart abnormalities?
a. Pulmonary atresia
b. Tetralogy of Fallot
c. Tricuspid atresia
d. Aortic stenosis

What congenital heart defects determine poor weight gain in a child?
a. Subaortic ventricular septal defect
b. Preductal type coarctation of the aorta
c. Small muscular ventricular septal defect
d. Transposition of the great arteries
e. Atrioventricular septal defect

Which of the following is a common symptom of coarctation of the aorta?
a. Syncope
b. Weakness or cramping in the legs
c. Cyanosis
d. Clubbing of the fingers

What is your treatment strategy for a large isolated patent ductus arterious in the 5 weeks old 1500 g weight premature newborn with a worsening of clinical condition?
a. Observational tactics
b. Infusion of ibuprofen
c. You will organize a Rashkind's septostomy
d. Infusion of prostaglandins
e. You will organize a surgery

Which of the following is NOT a symptom of heart failure in infants and children?
a. Cyanosis
b. Tachycardia
c. Bradycardia
d. Shortness of breath

Which of the following determines the severity of tetralogy of Fallot?
a. Dextroposition of the aorta
b. Size of pulmonary artery
c. Large ventricular septal defect
d. Hypoplasia of the infundibular part of the right ventricle
e. Patent ductus arteriosus

Correct therapeutic options for diabetic ketoacidosis are:
a. Subcutaneous injection of long-acting insulin analog
b. Intramuscular injection of intermediate acting NPH insulin
c. Correction of moderate acidosis with Na hydrocarbonate
d. Oral rehydration
e. Intravenous infusion of regular (human) insulin perfusor

What happens physiologically? 🧪

Without insulin:

glucose cannot enter cells
body thinks it is starving

So it burns fat instead:
🔥 fat → ketones

Ketones are acidic:
➡️ metabolic acidosis

At the same time:

blood sugar rises enormously
dehydration becomes severe

Diabetic ketoacidosis is diagnosed when:
a. pH < 7.40
b. HCO3 < 25 mmol/l
c. HCO3 < 22 mmol/l
d. pH < 7.30
e. HCO3 < 15 mmol/l

Clinical syndromes that are common in both (bacterial and viral) intestinal infections:
a. Enteritis
b. Gastroenteritis
c. Hemolecolitis

d. Gastritis
e. Hepatolineal

What are the emergency medications for the treatment of asthma exacerbation in children?
a. Monoclonal antibodies against IgE (omalizumab)
b. Inhaled glucocorticosteroids (budesonide, fluticasone, etc.)
c. Inhalations of hypertonic saline (NaCl solution)
d. Short-a cting inhaled β2 agonists (salbutamol)
e. Leukotriene receptor antagonist (montelukast)
Verification: Answer taken from the Anki marker (not independently found in Trial files).

Which of the following is the most common cause of respiratory distress in newborns?
a. Congenital heart disease
b. Congenital diaphragmatic hernia
c. Hypoglycemia
d. Respiratory distress syndrome
e. Gastroesophageal reflux disease

Ectropion is:
a. Uneven eyelid margin
b. Irregularly growing eyelashes
c. Outward turning of the eyelid margin
d. Inflammation of the eyelid margin
e. Inward turning of the eyelid margin

Treatment of invasive (T2 N0M0) bladder cancer is…
a. Chemotherapy only
b. Radical cystectomy with urinary reservoir formation
c. BCG vaccine instillations into the bladder
d. Radiation therapy
e. Transurethral resection of a bladder tumor

Which one of the following criteria is mandatory to diagnose postinfectious glomerulonephritis in childhood?
a. Elevated ASO titer in serum
b. Streptococcal tonsillitis within 2-3 weeks
c. Macrohematuria
d. Edema
e. Decreased serum C3 level

After infection:
immune complexes form
they get trapped in kidney glomeruli
This causes:
🔥 inflammation in the kidney filters
Complement C3 gets consumed during immune complex activation

15 yrs old boy has HLA DQ2 haplotype. What we can diagnose without other investigations: Select one: [SC]
a. No one of these diseases
b. Ankylosing spondyloarthritis
c. I type diabetes
d. Coeliac disease
e. Rheumatoid arthritis
! HLA-DQ2 is associated with Celiac Disease, but its presence alone is not diagnostic without other investigations.

In which situation one can postpone kidney biopsy?
a. Acute allograft rejection
b. Nephrotic syndrome in a patient without diabetes
c. Hematuria (dysmorphic erythrocytes) and acute kidney injury
d. Isolated microhematuria
e. Lupus with kidney involvement

other options require urgent biopsy

Which is not true about peritoneal dialysis?
a. Two main forms are continous ambulatory and automated peritoneal dialysis
b. Peritonitis is treated with intraperitoneal antibiotics
c. Patients use glucose, icodextrin and amino acid solutions
d. This is a home-based dialysis
e. Cannot be administered for a diabetic patient

Which test is not used to detect IgE-dependent sensitization?

a. Skin prick-to-prick test
b. Skin prick test
c. Intradermal test
d. Skin patch test
e. Serum specific IgE

IgE are the "fast" allergies; like cats, pollen, peanuts, etc, you get symptoms quickly. they're type 1 hypersensitivity
IgE = skin prick tests, all the options u see here EXCEPT
Delayed hypersensitivity (slow allergy) Type IV = NOT IgE, T-cell mediated. Skin PATCH used for nickel allergy, poison ivy, contact dermatitis etc.
Prick = fast allergies
Patch = slow allergies

Which of the treatment methods is not used to treat prostate cancer?

a. Bilateral orchiectomy as androgen deprivation therapy
b. External radiation therapy
c. Radical prostatectomy
d. Transurethral resection of the prostate
e. Prostate brachytherapy

Which is not true about chronic kidney disease?

a. Renal anemia is treated with iron and epoetin
b. Risk of the progression of chronic kidney disease is defined by glomerular filtration rate and albuminuria
c. Chronic kidney disease is complicated with mineral and bone disorder
d. Chronic kidney disease has 4 stages CKD has 5 STAGES
e. Kidney transplantation can be performed before the start of dialysis

Which bacteria are currently effectively treated with natural penicillins in Lithuania?

a. Haemophilus influenzae
b. Streptococcus pyogens
c. Neisseria meningitidis
d. Escherichia coli
e. Streptococcus pneumoniae

What is the most common etiology of acute bronchiolitis in children?

a. Parainfluenza virus
b. Mycoplasma pneumoniae
c. Respiratory syncytial virus RSV = bronchiolitis
d. Streptococcus pneumoniae
e. Cytomegalo virus

What is the cause of infant rumination syndrome?

a. The baby receives too little stimulation form the enviroment
b. Intestinal infection
c. Motor immaturity of the baby´s digesstive tract
d. High osmolality of food
e. Changes in intestinal microbiota

Which of the following is a common sign of heart failure in infants and children?

a. Hypotension
b. Tachypnea
c. Hypertension
d. Bradycardia

Which behavioral disorder (according to ICD-10 F91) is the most prognostically favorable, as it manifests at a young age ands, with appropriate behavioral correction interventions can improve?

a. Socialized conduct disorder (F91.2)
b. Unsocialized conduct disorder (F91.1)
c. Oppositional defiant disorder (F91.3)
d. Conduct disorder confined to the family context (F91.0)

After starting antibacterial treatment for scarlet fever, when is it safe for a sick child to play in the same room with other children?

a. After 3 days
b. After the first dose of antibiotic
c. After 10 days

d. After 24 hours

What are the elements of the rash characteristic of chickenpox?

a. Vesicles
b. Weals
c. Petechiae
d. Macules
e. Scabs

When should children aged 2-6 years who are generally healthy but develop acute fever be admitted to a medical facility?

a. In case of a vesicular rash
b. If the child is lethargic, uninterested in his/her surroundings, with a greyish face, even with a subfebrile temperature
c. Immediately on first presentation of a fever
d. Immediately, if a haemorrhagic rash is suspected
e. Immediately if it is a febrile temperature

What is the duration of transmission of uncomplicated measles?

a. From the last 1-2 days of the incubation period to day 17
b. From the onset of the rash to full recovery
c. From the onset of the disease to the disappearance of the rash
d. From the first symptoms to the onset of the rash
e. From the last 1-2 days of the incubation period to the fifth day after the onset of the rash

ECG changes seen in myocarditis are:

a. Extrasystolies
b. Low QRS voltage
c. Tachycardia
d. Hypertrophy of the right ventricle
e. Prolonged electrical duration of ventricular systole

Laboratory tests to confirm pertussis:

a. Culture or PCR of nasopharyngeal secretions of Bordetella spp.
b. Complete blood count
c. Ches x-ray
d. Detection of IgG class antibodies against Bordetella pertussis toxin
e. Microscopy of nasopharyngeal swab

Which symptom is not characteristic of functional dyspepsia?

a. Positive reaction of occult blood in stool
b. Early feeling of satiety
c. Abdominal (epigastric) bloating (flatulence)
d. Pain in the epigastrium
e. Relieves after defecation

The stomach “feels sick” and uncomfortable,
but when doctors look with tests:
🔍 they do not find ulcers, tumors, bleeding, etc.

The stomach function is disturbed rather than structurally damaged.

In which situations antibacterial treatment is initiated for child with diarrhoea without waiting for feacal culture result:

a. Fever over 39°C
b. Profuse watery diarrhoea
c. Systemic course of the disease
d. Severe dehydration
e. Haemocolitis

For the long-term treatment of constipation, the safest and most commonly used laxatives are:

a. Bisacodyl
b. Macrogol (polyethylene glycol 4000)
c. Food fibers
d. Lactulose
e. Senna preparations

63. [Anki #405] What treatment will you choose for a child with acute myopericarditis?

a. Mercaptopurine
b. Salbutamol
c. Captopril
d. Ibuprofen
e. Mildronate

Chronic complications of type 1 diabetes mellitus are:
a. Hypoglycemia
b. Microangiopathies
c. Macroangiopathy
d. Diabetic neuropathy
e. Diabetic ketoacidosis

damages small and large BVs

65. [Anki #407] Streptococcus pneumoniae is one of the main causes of:
a. Acute otitis media
b. Acute epiglotitis
c. Acute encephalitis
d. Pneumonia

Which pertussis vaccines(s) are used to vaccinate children of different ages in Lithuania?
a. DTaP
b. Tdap
c. Td
d. DTwP

Common complications of parotitis:
a. Pancreatitis
b. Orchitis
c. Toxic shock syndrome
d. PANDAS
e. Oophoritis

b. = inflammation of one or both testicles
e. = inflammation of ovaries

"Mumps likes glands and gonads"
parotitis
orchitis
oophoritis
pancreatitis

How is Hand-foot-mouth disease transmitted?
a. Transplacental route
b. Parenterally
c. Faecal oral route
d. Respiratory route
e. All of the written routes

Clinical syndromes that are characteristic of both (bacterial and viral) intestinal infections:
a. Enteritis
b. Gastroenteritis
c. Gastritis
d. Hepatolienal
e. Haemocolitis

How is widespread oropharyngeal diphtheria diagnosed?
a. Clinical features, blood PCR
b. Clinical features, blood culture
c. Clinical features, diphtheria-specific IgM in blood serum
d. Clinical features, tonsil culture
e. Clinical features, rapid test for Corynbacterium diphtheriae, tonsil culture

Which viral exanthems are characterised by altered skin pigmentation?
a. Rubella
b. Chickenpox
c. Measles
d. Parvovirus infection
e. Sudden exanthema

Which of the following congenital heart diseases are characterized by ventricular arrhythmias?

a. Brugada syndrome
b. Hypertrophic cardiomyopathy
c. Coarctation of the aorta
d. Ventricular septal defect
e. Long QTc syndrome

What usually causes chronic gastritis in children aged 9-14 years:
a. Stress
b. Food allergy
c. Nonsteroidal anti-inflammatory drugs
d. Helicobacter pylori
e. Food

Which method is considered the "gold standard" for diagnosing food allergy?
a. Skin prick test
b. Skin patch test
c. Double-blind placebo controlled oral food challenge
d. Skin prick-to-prick test
e. Serum specific IgE

An infant with bacterial meningitis:
a. Has a fever
b. Pulls the legs together when grabbed by the armpits
c. Has high-pitched moaning and crying
d. Has impaired muscle tone (hypo- or hypertonus)
e. Calms down when lifted

Encopresis is:
a. A sign of child impurity
b. A characteristic symptom of teenagers with constipation
c. A characteristic symptom of children under 10 years of age with contipation
d. More common in girls
e. Encopresis when child performs normal bowel movement in pants.

Encopresis means:
stool accidents in children

Usually because of:
chronic constipation

! repeated, involuntary passing of stool into clothing in children aged 4 or older who have already been toilet trained.

List the characteristics of childhood diphtheria:
a. People who have been vaccinated against diphtheria can be a source of diphtheria infection
b. Unvaccinated children are at a real risk of contracting diphtheria
c. In countries with high vaccination coverage, unvaccinated children are safe dure to high herd immunity
d. Diphtheria in children is not severe

The "strawberry" tongue is characterisitc to:
a. Infection caused by Yersinia pseudotuberculosis
b. Infection caused by Corynbacterium diphtheriae
c. Haemophilus influenzae infection
d. Streptococcus pyogenes infection
e. Staphylococcus aureus infection

Which intestinal infections can only be transmitted by humans?
a. Pseudotuberculosis
b. Campylobacteriosis
c. Salmonellosis
d. Shigellosis

how will shiggy survive

Which statements are true about sudden exanthema?
a. Characteristic vesicular rash after three days of febrile fever
b. It is important to confirm the diagnosis by serological investigations

The child suddenly gets:
🔥 very high fever

Then after the fever disappears:
🌸 a rash suddenly appears.

c. The most common complication is febrile seizures

d. The most affected age group is children aged 6 months to 3 years

e. Phenoxymethylpenicillin is indicated for treatment

What is your treatment strategy for the preductal coarctation of the aorta?

a. You will organize a surgery

b. Infusion of ibuprofen

c. Observational tactics

d. You will organize a Rashkind´s septostomy

e. Infusion of prostaglandins

Expiratory dyspnea is common for:

a. Bronchitis

b. Tracheitis

c. Bronchial asthma

d. Obstructive laryngitis (croup)

e. Obstructive bronchitis

What is the most common cause of heart failure in infants and children?

a. Congenital heart defects

b. Rheumatic fever

c. Hypertension

d. Coronary artery disease

Correct statement(s) about parvoviruses:

a. Children aged 5 to 15 years are most often affected

b. Rreproduces only in active (mitotic) cells of the host

c. Vaccination has resulted in low incidence of the disease

d. Disease caused by these viruses always manifest by a vesicular skin rash

The most frequent cause of acute urticaria in children:

a. Antibiotics

b. Food additives

c. Food allergens

d. Respiratory allergens

e. Upper respiratory viral infections

For the diagnosis and control of which disease is the examination of the respiratory function with a peak expiratory flow meter (PEF) used?

a. Community acquired pneumonia

b. Bronchial asthma

c. Acute bronchiolitis

d. Bronchiectasis disease

e. Obstructive laryngitis

The effect of thiopental on organ system is:

a. It increases cerebral blood flow and cerebral metabolism

b. It increases myocardial contractility

c. It increases systemic vacular resistance and venous return

d. It causes dose-dependent respiratory depression

Ay Thio, SLOW DOWN….

Which signs are relevant to the diagnosis of rubella:

a. Small maculopapular rash over the whole body

b. Enlarged occipital lymph nodes

c. Elevated IgM antibody titre against rubella virus

d. The rash appears in phases

e. Elevated IgG antibody titre against rubella virus

IgM bc MRubella, Mr Rubella

Non-Suppurative complications of scarlet fever:

a. Staphylococcal toxic shock syndrome

b. Rheumatic fever

Scarlet fever

Scarlet fever is caused by:

Group A Streptococcus (GAS)

Classic symptoms
sore throat
fever
“sandpaper” rash
strawberry tongue
Pastia lines

c. Necrotizing fascitis
d. PANDAS
e. Glomerulonephritis

What is the influence of heredity on ulcerative colitis and Crohn´s disease?
a. Higher in ulcerative colitis
b. Crohn´s disease can be diagnosed based on genetic testing
c. Same for both diseases
d. Crohn´s disease occurs before their parents did
e. Higher in Crohn´s disease

Which of the following is a common cause of heart failure in children with dilated cardiomyopathy?
a. Hypertension
b. Rheumatic fever
c. Coronary artery disease
d. Viral myocarditis

In countries where the varicella vaccine is not included in the National Immunoprophylaxis Programme, chickenpox is the most common disease in:
a. Children aged 10-14 years
b. Children 0-4 years
c. Neonates
d. Adolescents
e. Children aged 5-9 years

What is your treatment strategy for the isolated transpoition of the great arteries?
a. Infusion of ibuprofen
b. Infusion of metoprolol
c. You will organize Rashkind´s septostomy
d. Infusion of prostaglandins
e. Observational tactics

Correct therapeutic options for severe diabetic ketoacidosis are:
a. Correction of moderate acidosis with Na hydrocarbonate
b. Subcutaneous injection of long acting insulin analog
c. Intramascular injection of intermediate acting (NPH) insulin
d. Intravenous perfusion of regular or rapid insulin
e. Oral rehydration

Which of the listed medications and treatment methods are included in the standard treatment protocol for stenosing (obstructive) laryngitis?
a. Antibiotics
b. Dexamethasone
c. Paracetamol
d. Adrenaline (epinephrine) aerosol
e. H1 histamine blockers

The acidity and secretion of gastric juice is inhibited by the following drug groups:
a. Probiotics
b. Antacid
c. Alginates
d. Prokinetics
e. Proton pump inhibitors

Mark correct answers indicating which of the following heart diease is characterized by pulmonary valve stenosis?
a. Tricuspid atresia
b. Aortic stenosis
c. Tetralogy of Fallot
d. Pulmonary stenosis

First choice treatment for infants with cow´s milk protein allergy?

a. Goat´s milk formula
b. Partially hydrolyzed formula
c. Amino acid formula
d. Soya infant formula
e. Extensively hydrolyzed formula

True statements about rotavirus vaccines registered in Lithuania:
a. The vaccine is recommended for anyone travelling to endemic countries
b. Both vaccines are given orally
c. There must be a gap of at least 8 weeks between doses
d. Vaccine can be given to infants from 6 weeks of age
e. Vaccination of premature infants is not recommended

What is the first-line antibacterial treatment for scarlet fever?
a. Amoxicillin
b. Clarithromycin
c. Cefadroxil
d. Phenoxymethylpenicillin
e. Cefuroxime

What is your treatment strategy for dilated cardiomyopathy?
a. Antithrombotic treatment
b. Ross surgery
c. Heart failure treatment
d. Antiviral treatment
e. Alcoholic ablation of the interventricular septum

Which of the listed drugs are intended for long-term stepwise treatment of bronchial asthma in children?
a. H1 antihistamines
b. Long-acting beta-agonist (LABA)
c. Short-acting beta-agonist (SABA)
d. Inhaled corticosteroid (ICS)
e. Leukotriene receptor antagnoist (LTRA)

Congenital varicella syndrome is characterised by:
a. Cardiac malformations
b. Lim hypoplasia
c. Deafness
d. Microcephaly, hydrocephalus
e. Intrauterine fetal growth retardation, low birth weight

Congenital varicella syndrome

This happens when:

a pregnant woman gets primary varicella (chickenpox) especially in early pregnancy

The virus damages the developing fetus.

The main pathogenic factor of GERD:
a. Transient relaxation of the lower esophageal sphincter is too frequent
b. Increased stomach acidity
c. Increased gastric acidity and decreased basal pressure in the lower esophageal sphincter
d. Changes in the motility of the small intestine
e. Decreased basal pressure of the lower esophageal sphincter

What is the most common etiology of epiglottitis?
a. Staphylococcus aureus
b. Rhinovirus
c. Parainfluenza virus
d. Haemophilus influenzae

What are the clinical symptoms of uncomplicated bacterial community-acquired pneumonia?
a. Rhonchi
b. Asymmetry of auscultatory and percussive sound
c. Dyspnoe (shortness of breath)
d. Tachypnea
e. Cough

What is the most common diet for functional diarrhea?

a. The amount of fat and protein is limited
b. Limited fat and carbohydrates
c. Protein intake is limited
d. Monosaccharides and disaccharides are limited
e. Fat content is limited